

**CITY OF WEST DES MOINES
PLAN AND ZONING COMMISSION COMMUNICATION**

Meeting Date: May 13, 2019

Item: MidAmerican Energy Company RecPlex, 6500 Grand Avenue – Preliminary Plat for subdivision of the property into two lots for development and four outlots and Site Plan for construction of an indoor/outdoor recreation facility – City of West Des Moines – PP-004209-2019/SP-004210-2019

Requested Action: Approval of Preliminary Plat and Site Plan

Case Advisor: Brian Portz, AICP

Applicant's Request: The City of West Des Moines is requesting approval of a preliminary plat/site plan for the construction of an indoor/outdoor recreational facility. The facility will consist of 2 ice hockey rinks, indoor soccer fields, basketball courts, volleyball courts, restaurant/concessions, sport, medical and facility operations related offices, and meeting room space. In addition, the site will also include 3 outdoor soccer fields with areas for future expansion. The property is being subdivided into two lots for development, two outlots for storm water detention (due to being split by the Dallas-Polk County line - Outlots Y and Z), one outlot for future expansion of outdoor fields (Outlot X) and one outlot for possible future street ROW should the City be able to obtain a crossing over the railroad (Outlot W).

History: The property was annexed into the City in 1999 as a part of the McKinney Annexation. The property is designated as Parcel 5 within the West Grand Business Park PUD and is undeveloped nor has it ever been platted. A Grading Plan was approved last month by the City to allow dirt to be brought onto the site in order to raise the elevation of the intended building pad, internal access drives, and portions of the parking. A PUD amendment is currently being reviewed by the City Council to establish the development requirements and regulations associated with the development of the recreational facility and will be re-designating the development as Parcel 10 in the PUD. Second and third readings of the PUD Ordinance are anticipated to be approved by the City Council on May 20, 2019.

City Council Subcommittee: This item was presented to the Development & Planning City Council Subcommittee at their April 1, 2019 meeting, as an informational item only. No discussion was had and no disagreement with the proposal was expressed.

Staff Review and Comment: This request was distributed to other City departments and other agencies for their review and comment. There are no outstanding issues. Staff would summarize the following key points of interest:

- **West Grand Business Park PUD Amendment:** The 2nd and 3rd reading of the proposed amendment to the West Grand Business Park PUD as it pertains this property will be considered by the City Council on May 20, 2019. No issues with the 2nd and 3rd readings and adoption of the associated ordinance amendment is anticipated; however, staff is recommending a condition of approval requiring official City Council adoption of the ordinance prior to issuance of a building permit for the property.
- **Preliminary Plat:** The site is proposed to be subdivided into 2 lots and 4 outlots. Lot 1 will be the RecPlex lot and Lot 2 will remain under the ownership of the W&G McKinney Farms LC. for future development. Two of the outlots are for storm water detention due to the division of the facility by the Polk-Dallas County line, one outlot is located to the west of the RecPlex and will potentially be for the expansion of the outdoor fields, and the remaining outlot is potentially future right-of-way for the extension of S. Jordan Creek Parkway.
- **Parking:** The proposed amendment to the West Grand Business Park PUD includes parking requirements for specific uses proposed as a part of the recreational facility. Parking requirements for the various uses anticipated have been outlined in the PUD as follows:
 - arena: one parking space per four fixed seats,

- fieldhouse: one parking space per 1,000 square feet of court or turf area,
- meeting rooms: one parking space per 50 square feet,
- outdoor fields: 85 parking spaces per field, and,
- offices: one parking space per 275 square feet of office area, including reception and common areas.

Events at the RecPlex may occur independently or there may be overlapping of events. As expressed in the PUD, events will need to be programmed such that parking demand can be accommodated within the parking supply on the site. It is recognized that there may be instances when parking demand will exceed the supply. In these situations, alternate parking accommodations will need to be implemented, such as a shuttle service or parking agreements with nearby properties. 860 parking stalls are required. 963 parking stalls are being constructed initially to provide for the activities and programming that are anticipated to typically occur within the facility. An additional 181 parking stalls can be constructed should the need arise. The applicant is requesting deferral of the additional parking until such time that operations within the site warrant the installation of additional parking. The stalls are not needed to fulfill parking requirements based on the current anticipated use of the facility but are being identified on the site plan to confirm compliance with development standards should they be needed in the future. Since these stalls are being shown on the site plan, staff has included a condition of approval for the deferral of the additional 181 parking stalls.

- **Landscaping:** The PUD allows open space at 25% of the lot along with an allowance to permit landscaping installation within 3 years of the issuance of the first occupancy permit for the RecPlex development. The City proposes to install landscaping in phases on the property. The City's Parks and Recreation Department will be overseeing specific plant variety selection and installation of the vegetation. A condition of approval is recommended reinforcing that the landscaping must be installed within 3 years of the issuance of the first occupancy permit for the building.
- **Architecture:** The architectural intent for this parcel is to establish a unique and high-quality identity for a recreational complex. The exterior design will incorporate variations in building form and facades and articulated to provide visual interest and lessen the plainness of appearance which can be characteristic of large prefabricated buildings. All facades will receive high quality materials, finishes, and details. Staff has worked with the architect to create facades that disguise the appearance of a typical 'Morton' building which is characteristic of sports venues. Colors and material patterning have been utilized to provide visual entrance and break up the mass of the buildings. A red accent color is being incorporated which ties to the corporate color of two of the main sponsors, MidAmerican Energy and HyVee.
- **Elevation of the Site:** The property has been identified per FEMA as being located within the 1 percent (100 year) and 0.5 percent (500 year) flood hazard areas of the Raccoon River. The City has three options to address the potential for flooding based on the recommendations in American Society of Civil Engineers manual ACES 24 (Flood Resistant Design and Construction): Establish a design flood elevation which considers flood risk factors outside the FEMA designation, elevate 3' above the 100-year flood hazard elevation, or elevate 1' above the 500-year flood hazard elevation. The City has chosen to raise the building pad, critical internal circulation drives to the building, and portions of the parking lot 1' above the 500-year flood hazard elevation. It is estimated that 300,000 cubic yards of dirt will be needed to raise the site to this elevation. Upon approval of a Grading Permit last month, the city has started to bring dirt onto the site.
- **Signage:** Wall signage is intended to be the primary identification of the complex. Additionally, wayfinding signage and outdoor field identification allowances are specified within the PUD, specifically outlining the size and location of signs that will be allowed.
- **Building Permit Issuance:** A Final Plat for the property will need to be approved and recorded with the County(ies) prior to issuance of a building permit for the property. A condition of approval is recommended stating this requirement.

Comprehensive Plan Consistency: The project has been reviewed for consistency with the Comprehensive Plan. Based upon that review, a finding has been made that the proposed project is consistent with the Comprehensive Plan in that the project is consistent with all of the goals and policies of the Comprehensive Plan and the land use map of the Comprehensive Plan.

Findings: This proposed project was distributed to various city departments for review and comment. Based upon that review, the following findings have been made on the proposed project:

1. The proposed development and use is consistent with the West Des Moines Comprehensive Plan in that the project has been reviewed for consistency with the Comprehensive Plan. Based upon that review, a finding has been made that the proposed project is consistent with the Comprehensive Plan in that the project is consistent with all of the goals and policies of the Comprehensive Plan.
2. The proposed development and use does assure compatibility of property uses within the zone and general area in that this project was reviewed by various City Departments for compliance with the Zoning Ordinance.
3. All applicable standards and conditions have been imposed which protects the public health, safety and welfare in that this project was reviewed by various City Departments and public agencies for compliance with the various state and local regulations. Based upon that review a finding is made that the project has been adequately conditioned to protect the health, welfare and safety of the community.
4. There is adequate on-site and off-site public infrastructure to support the proposed development in that this project was reviewed by various public agencies and City Departments and public utilities to ensure that either the petitioner will construct or the project has been conditioned to construct adequate public infrastructure to serve the development.
5. The proposed development and use has met the requirements contained in the City Code in that this project was reviewed by various City Departments and the project has complied with or has been conditioned to comply with all City Code requirements.
6. The proposed development and use is in keeping with the scale and nature of the surrounding neighborhood in that the proposed project is consistent with the zoning designation and Comprehensive Plan which designates this site as suitable for development such as that proposed by this project.

Staff Recommendation and Conditions of Approval: Based upon the preceding review and a finding of consistency with the goals and policies of the Comprehensive Plan, staff recommends the Plan and Zoning Commission adopt a resolution recommending the City Council approve the Preliminary Plat to create 2 lots and 4 outlots and approve a Site Plan for the construction of an indoor/outdoor recreation facility, subject to the applicant meeting all City Code requirements and the following:

1. The City's consultants continuing to work with City Staff to address remaining site plan and building elevation comments and provide final signed drawings prior to a building permit being issued for the building.
2. The landscape phasing shall be completed as shown in the approved landscape plans. All phases shall be completed within 3 years of the issuance of the first occupancy permit, including temporary occupancy permits. Upon installation of each phase, the City's Parks and Recreation Department shall submit a landscape plan which identifies the location of each plant installed in the respective phase and the specific plant variety.
3. The applicant acknowledging and agreeing that no building permit will be issued until the associated West Grand Business Park PUD Amendment is officially adopted by the City Council.
4. The associated Final Plat shall be approved by the City Council and recorded with the respective county(ies) prior to the issuance of a building permit.
5. The City Council deferring the installation of 181 parking stalls until such time that operations within the site warrant the installation of additional parking. The stalls are not needed to fulfill parking requirements based on the anticipated typical use of the facility. At such time that the stalls are to be constructed, the applicant shall confirm the construction details match that provided in this site plan. If layout or engineering details

are different than that provided in the approved site plan, a Minor Modification Permit application shall be submitted for review and approval prior to construction of the stalls.

6. The architect providing physical samples of the materials and colors to be utilized for City approval prior to the building going out to bid.

Property Owner: City of West Des Moines
4200 Mills Civic Parkway
West Des Moines, IA 50265
Attn: Tom Hadden
Tom.hadden@wdm.iowa.gov

Applicant's Representatives:
Larrison & Associates Architects
2322 East Kimberly Road, Suite 120 S
Davenport, IA 52807
Attn: Greg Larrison
greg.larrison@larrisonarchitects.com

ATTACHMENTS:

Attachment A	-	Plan and Zoning Commission Resolution
Exhibit A	-	Conditions of Approval
Attachment B	-	Location Map
Attachment C	-	Building Elevations
Attachment D	-	Preliminary Plat/Site Plan

RESOLUTION NO. PZC-19-042

**A RESOLUTION OF THE PLAN AND ZONING COMMISSION OF THE
CITY OF WEST DES MOINES, IOWA, RECOMMENDING TO THE CITY COUNCIL THAT
IT APPROVE THE MIDAMERICAN ENERGY REC PLEX PRELIMINARY PLAT AND SITE PLAN
(PP-004209-2019/SP-004210-2019) FOR THAT PROPERTY LOCATED AT 6500 GRAND AVENUE**

WHEREAS, pursuant to the provisions of Title 10, Chapter 1 et seq, of the West Des Moines Municipal Code, the applicant, The City of West Des Moines, has requested approval of a Preliminary Plat for the subdivision of the property into two lots for development and four outlots for that certain 71.48-acre site located at the southeast corner of Jordan Creek Parkway and Grand Avenue;

WHEREAS, pursuant to the provisions of Title 9, Chapter 1 et seq, of the West Des Moines Municipal Code, the applicant, The City of West Des Moines, has requested approval of a Site Plan to allow the construction of an indoor/outdoor recreational facility for that property located at 6500 Grand Avenue;

WHEREAS, studies and investigations were made, and staff reports, and recommendations were submitted which is made a part of this record and herein incorporated by reference;

WHEREAS, on May 13, 2019, this Commission held a duly-noticed meeting to consider the Preliminary Plan and Site Plan (PP-004209-2019/SP-004210-2019);

NOW, THEREFORE, THE PLAN AND ZONING COMMISSION OF THE CITY OF WEST DES MOINES DOES RESOLVE AS FOLLOWS:

SECTION 1. The findings, for approval, in the staff report, dated May 13, 2019, or as amended orally at the Plan and Zoning Commission meeting of May 13, 2019, are adopted.

SECTION 2. PRELIMINARY PLAT/SITE PLAN (PP-004209-2019/SP-004210-2019) to subdivide the property into two lots for development and four outlots and allow construction of an indoor/outdoor recreational facility is recommended to the City Council for approval, subject to compliance with all the conditions in the staff report, dated May 13, 2019, including conditions added at the meeting, and attached hereto as Exhibit "A". Violation of any such conditions shall be grounds for revocation of the permit, as well as any other remedy which is available to the City.

PASSED AND ADOPTED on May 13, 2019.

Erica Andersen, Chair
Plan and Zoning Commission

ATTEST:

Recording Secretary

I HEREBY CERTIFY that the foregoing resolution was duly adopted by the Plan and Zoning Commission of the City of West Des Moines, Iowa, at a regular meeting held on May 13, 2019, by the following vote:

AYES:
NAYS:
ABSTENTIONS:
ABSENT:

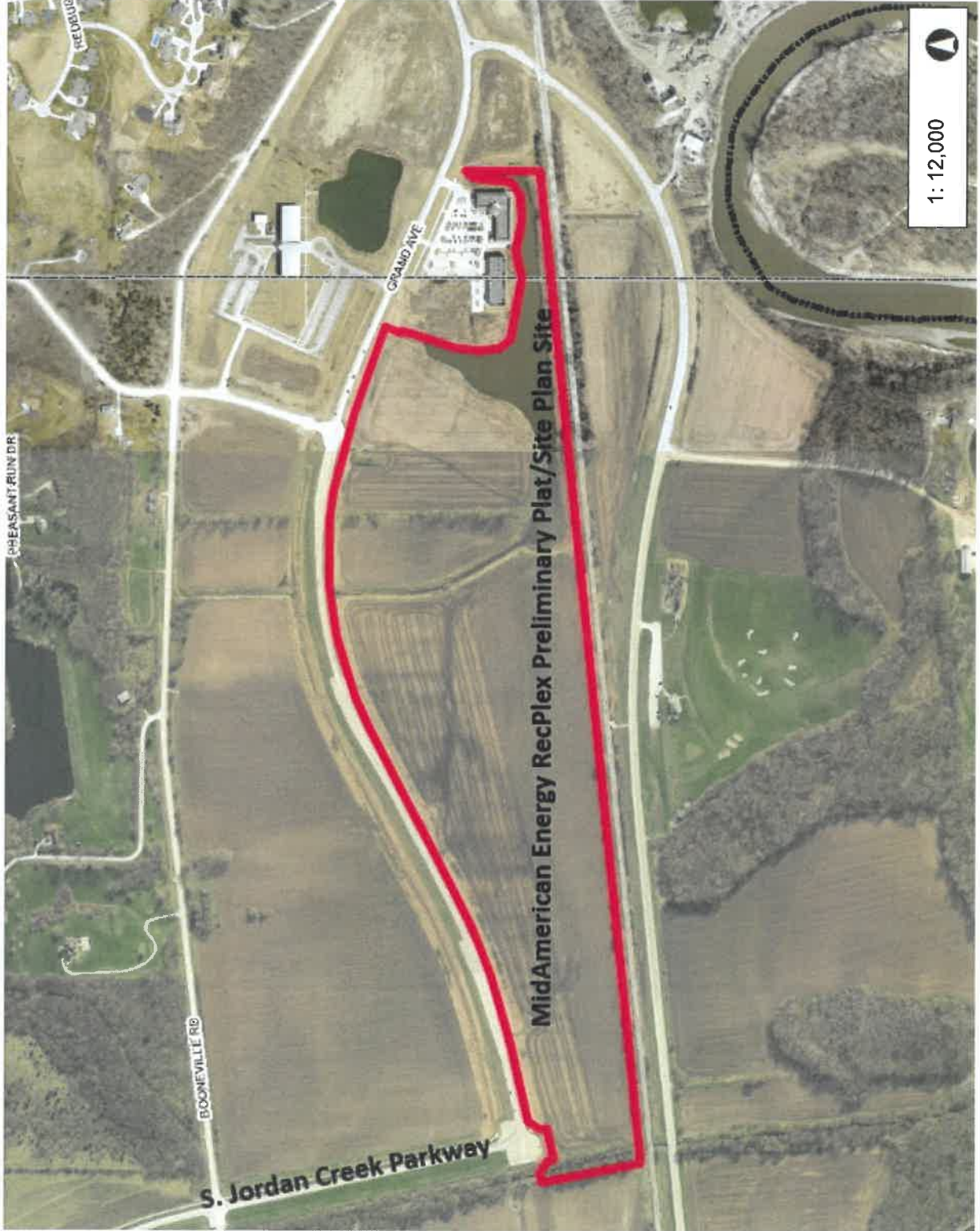
ATTEST:

Recording Secretary

Exhibit A
Conditions of Approval

1. The City's consultants continuing to work with City Staff to address remaining site plan and building elevation comments and provide final signed drawings prior to a building permit being issued for the building.
2. The landscape phasing shall be completed as shown in the approved landscape plans. All phases shall be completed within 3 years of the issuance of the first occupancy permit, including temporary occupancy permits. Upon installation of each phase, the City's Parks and Recreation Department shall submit a landscape plan which identifies the location of each plant installed in the respective phase and the specific plant variety.
3. The applicant acknowledging and agreeing that no building permit will be issued until the associated West Grand Business Park PUD Amendment is officially adopted by the City Council.
4. The associated Final Plat shall be approved by the City Council and recorded with the respective county(ies) prior to the issuance of a building permit.
5. The City Council deferring the installation of 181 parking stalls until such time that operations within the site warrant the installation of additional parking. The stalls are not needed to fulfill parking requirements based on the anticipated typical use of the facility. At such time that the stalls are to be constructed, the applicant shall confirm the construction details match that provided in this site plan. If layout or engineering details are different than that provided in the approved site plan, a Minor Modification Permit application shall be submitted for review and approval prior to construction of the stalls.
6. The architect providing physical samples of the materials and colors to be utilized for City approval prior to the building going out to bid.

MidAmerican Energy RecPlex



Legend

Corporate Limits

Disclaimer: The City of West Des Moines makes no warranties regarding the accuracy or completeness of the data provided herein.

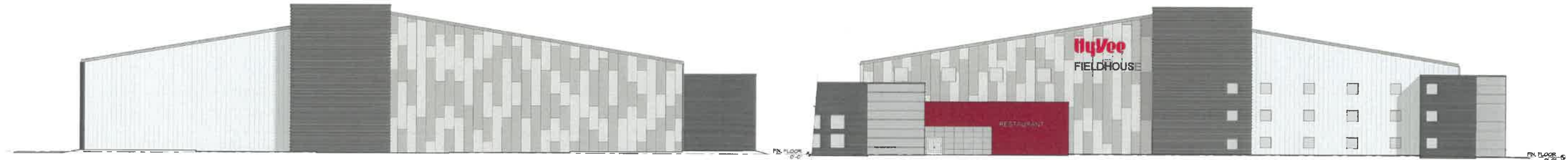
THIS MAP IS NOT TO BE USED FOR NAVIGATION

2,000.0
0 1,000.00 2,000.0 Feet

WGS_1984_Web_Mercator_Auxiliary_Sphere
© City of West Des Moines, Iowa

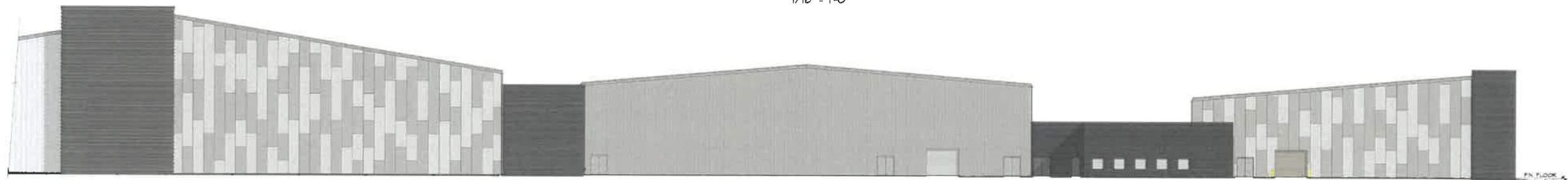


ARENA NORTH ELEVATION
1/16" = 1'-0"

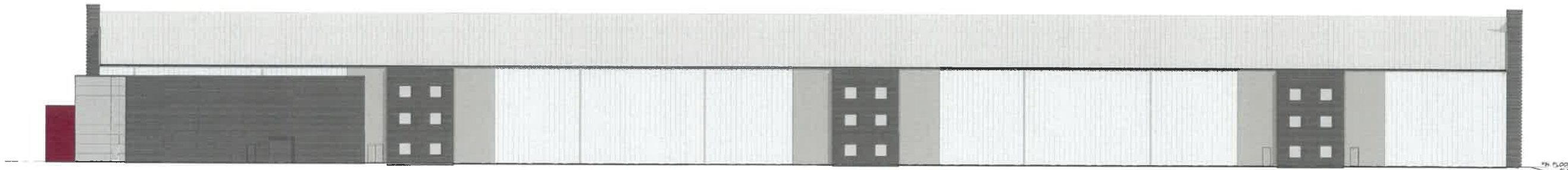


SOUTH ELEVATION - FIELDHOUSE
1/16" = 1'-0"

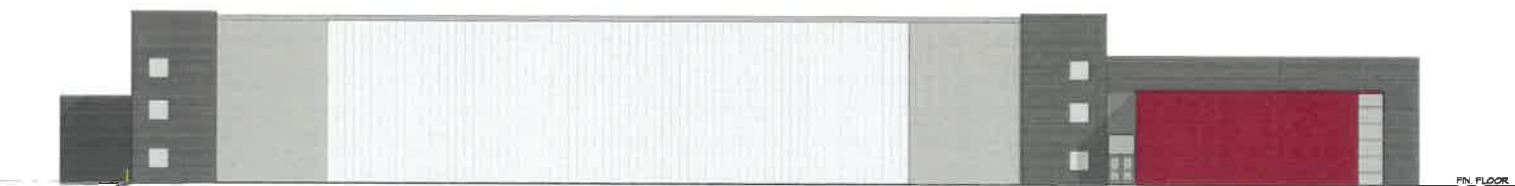
NORTH ELEVATION - FIELDHOUSE
1/16" = 1'-0"



ARENA SOUTH ELEVATION
1/16" = 1'-0"



WEST ELEVATION - FIELDHOUSE
1/16" = 1'-0"



ARENA #2 EAST ELEVATION
1/16" = 1'-0"



WEST ELEVATION - RESTAURANT
1/16" = 1'-0"

PRELIMINARY PLAT/SITE PLAN

MIDAMERICAN ENERGY COMPANY RECPLEX

WEST DES MOINES, IOWA

VICINITY MAP
NOT TO SCALE



WEST DES MOINES, IOWA

OWNER/APPLICANT

CITY OF WEST DES MOINES
4200 MILLS CIVIC PARKWAY, 1A
WEST DES MOINES, IOWA 50265
PH: (515) 222-3610
CONTACT: TOM HADDEN
EMAIL: TOM.HADDEN@WDM.IOWA.GOV

ENGINEER

CIVIL DESIGN ADVANTAGE
3405 SE CROSSROADS DRIVE, SUITE G
GRIMES, IOWA 50111
PH: (515) 369-4400
FX: (515) 369-4410
CONTACT: JOSH TRYGSTAD
EMAIL: JOSH1@CDA-ENG.COM

SURVEYOR

CIVIL DESIGN ADVANTAGE, LLC
CONTACT: CHARLIE MCGLOTHLEN
3405 SE CROSSROADS DRIVE, SUITE G
GRIMES, IOWA 50111
PH: (515) 369-4400
FX: (515) 369-4410

ARCHITECT

LARRISON & ASSOCIATES ARCHITECTS
2322 EAST KIMBERLY ROAD, SUITE 120 S
DAVENPORT, IOWA 52807
PH: (563) 386-9161
CONTACT: GREG LARRISON
EMAIL: GREG.LARRISON@LARRISONARCHITECTS.COM

DATE OF SURVEY

2/19/2018

SUBMITTAL DATES

SITE PLAN SUBMITTAL #1: 01/29/2019
SITE PLAN SUBMITTAL #2: 05/05/2019

LEGAL DESCRIPTION

ALL OF PARCEL "18-136" AS SHOWN ON THE PLAT OF SURVEY RECORDED IN BOOK 2018, PAGE 20908, AND ALL OF OUTLOT "W" AND "X", WEST GRAND BUSINESS PARK PLAT 2, AN OFFICIAL PLAT, ALL IN THE CITY OF WEST DES MOINES, DALLAS COUNTY IOWA.

AND

ALL OF OUTLOT "Y" AND "Z", SAID WEST GRAND BUSINESS PARK PLAT 2, IN THE CITY OF WEST DES MOINES, POLK COUNTY IOWA, ALL CONTAINING 71.48 ACRES (3,113,479 S.F.)

ZONING

PUD - WEST GRAND BUSINESS PARK

PROJECT SITE ADDRESS

6500 GRAND AVENUE

LAND USE

EXISTING: AGRICULTURE

PROPOSED: PUBLIC RECREATIONAL FACILITY

DEVELOPMENT SUMMARY (LOT 1 ONLY)

AREA: X ACRES (X SF)

SETBACKS

FRONT: 50'
SIDE: 25' (0' REQUIRED IF ABUTTING SIMILAR DISTRICT)
REAR: 25' (0' REQUIRED IF ABUTTING SIMILAR DISTRICT)

OPEN SPACE

REQUIRED: 399,856 SF (25.0%)
PROVIDED: 748,755 SF (46.9%)

PARKING

REQUIRED:
STANDARD: 860 SPACES
ACCESSIBLE: 18 SPACES

PROVIDED:

STANDARD: 942 SPACES
ACCESSIBLE: 21 SPACES
963 SPACES

FUTURE:

STANDARD: 181 SPACES

IMPERVIOUS AREA

BUILDING: X SF
PAVING: X SF
SIDEWALKS/TRAILS: X SF

CONSTRUCTION SCHEDULE

ANTICIPATED START DATE = 06/15/2019
ANTICIPATED FINISH DATE = 08/31/2020

INDEX OF SHEETS

NO.	DESCRIPTION
C0.0	COVER SHEET
C0.1	QUANTITIES AND REFERENCE NOTES
C1.1-C1.2	TOPOGRAPHIC SURVEY/ DEMOLITION PLAN
C1.3-C1.4	PRELIMINARY PLAT
C2.1	DIMENSION REFERENCE PLAN
C2.2-C2.14	DIMENSION PLAN
C3.1	GRADING REFERENCE PLAN
C3.2-C3.14	GRADING PLAN
C4.1	UTILITY REFERENCE PLAN
C4.2-C4.14	UTILITY PLAN
C5.1-C5.6	DETAILS
L1.1	LANDSCAPE REFERENCE PLAN
L2.1-L2.13	LANDSCAPE PLAN
L3.1	LANDSCAPE DETAILS

GENERAL LEGEND

PROPOSED	EXISTING
PROPERTY BOUNDARY	SANITARY MANHOLE
SECTION LINE	WATER VALVE BOX
CENTER LINE	FIRE HYDRANT
RIGHT OF WAY	WATER CURB STOP
BUILDING SETBACK	WELL
PERMANENT EASEMENT	STORM SEWER MANHOLE
TEMPORARY EASEMENT	STORM SEWER SINGLE INTAKE
TYPE SW-501 STORM INTAKE	STORM SEWER DOUBLE INTAKE
TYPE SW-502 STORM INTAKE	FLARED END SECTION
TYPE SW-503 STORM INTAKE	DECIDUOUS TREE
TYPE SW-505 STORM INTAKE	CONIFEROUS TREE
TYPE SW-506 STORM INTAKE	DECIDUOUS SHRUB
TYPE SW-512 STORM INTAKE	CONIFEROUS SHRUB
TYPE SW-513 STORM INTAKE	ELECTRIC POWER POLE
TYPE SW-401 STORM MANHOLE	GUY ANCHOR
TYPE SW-402 STORM MANHOLE	STREET LIGHT
FLARED END SECTION	POWER POLE W/ TRANSFORMER
TYPE SW-301 SANITARY MANHOLE	UTILITY POLE W/ LIGHT
STORM/SANITARY CLEANOUT	ELECTRIC BOX
WATER VALVE	ELECTRIC TRANSFORMER
FIRE HYDRANT ASSEMBLY	ELECTRIC MANHOLE OR VAULT
SIGN	TRAFFIC SIGN
DETECTABLE WARNING PANEL	TELEPHONE JUNCTION BOX
WATER CURB STOP	TELEPHONE MANHOLE/VAULT
SANITARY SEWER	TELEPHONE POLE
SANITARY SERVICE	GAS VALVE BOX
STORM SEWER	CABLE TV JUNCTION BOX
STORM SERVICE	CABLE TV MANHOLE/VAULT
WATERMAIN WITH SIZE	MAIL BOX
WATER SERVICE	BENCHMARK
SAWCUT (FULL DEPTH)	SOL BORING
SILT FENCE	UNDERGROUND TV CABLE
USE AS CONSTRUCTED (UAC)	GAS MAIN
MINIMUM PROTECTION ELEVATION (MPE)	FIBER OPTIC
	UNDERGROUND TELEPHONE
	OVERHEAD ELECTRIC
	UNDERGROUND ELECTRIC
	FIELD TILE
	SANITARY SEWER W/ SIZE
	STORM SEWER W/ SIZE
	WATER MAIN W/ SIZE



UTILITY WARNING

ANY UTILITIES SHOWN HAVE BEEN LOCATED FROM FIELD SURVEY AND RECORDS OBTAINED BY THIS SURVEYOR. THE SURVEYOR MAKES NO GUARANTEE THAT THE UTILITIES SHOWN COMPRISE ALL THE UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UTILITIES SHOWN ARE IN THE EXACT LOCATION SHOWN.

CIVIL DESIGN ADVANTAGE
3405 SE CROSSROADS DR., SUITE G, GRIMES, IOWA 50111
PH: (515) 369-4400 Fax: (515) 369-4410
PROJECT NO. 1711.635

REFER TO GEOTECH ENGINEERING REPORT PN181497 BY ALLENDER BUTZKE ENGINEERS FOR GEOTECHNICAL REQUIREMENTS.

THE SITE PLAN DRAWING PACKAGE IS FOR SITE PLAN APPROVAL THROUGH THE CITY OF WEST DES MOINES ONLY AND SHALL NOT BE USED FOR CONSTRUCTION. REFER TO SEPARATE CONSTRUCTION DOCUMENTS FOR DETAILED CONSTRUCTION INFORMATION.

THE PROJECT REQUIRES AN IOWA NPDES PERMIT #2 AND CITY OF WEST DES MOINES GRADING PERMIT. CIVIL DESIGN ADVANTAGE WILL PROVIDE THE PERMITS AND THE INITIAL STORM WATER POLLUTION PREVENTION PLAN (SWPPP) FOR THE CONTRACTORS USE DURING CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR UPDATING THE SWPPP THROUGHOUT CONSTRUCTION AND MEETING LOCAL, STATE AND FEDERAL REQUIREMENTS.

ALL CONSTRUCTION MATERIALS, DUMPSTERS, DETACHED TRAILERS OR SIMILAR ITEMS ARE PROHIBITED ON PUBLIC STREETS OR WITHIN THE PUBLIC R.O.W.

THE MOST RECENT EDITION OF THE WEST DES MOINES STANDARD CONSTRUCTION SPECIFICATIONS FOR SUBDIVISIONS, THE 1993 DES MOINES METRO DESIGN STANDARDS WITH THE WEST DES MOINES ADDENDA, AND SUDAS AND WEST DES MOINES WATER WORKS GENERAL SUPPLEMENTAL SPECIFICATIONS FOR WATER INFRASTRUCTURE SHALL APPLY TO ALL WORK ON THIS PROJECT UNLESS OTHERWISE NOTED.

THE DESIGN SPECIFICALLY PREPARED FOR USE AT THE LOCATION SHOWN. USE IN ANY OTHER MANNER EXCEEDS THE INTENDED PURPOSE OF THESE DRAWINGS AND ANY ACCOMPANYING SPECIFICATIONS.

I HEREBY CERTIFY THAT THIS ENGINEERING DOCUMENT WAS PREPARED BY ME OR UNDER MY DIRECT PERSONAL SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF IOWA.

PRELIMINARY
NOT FOR CONSTRUCTION

DATE: _____
BY LICENSE RENEWAL DATE IS DECEMBER 31, 2020
PAGES OR SHEETS COVERED BY THIS SEAL:
C0.1-C5.6

ALL INFORMATION CONTAINED HEREIN IS UNCLASSIFIED EXCEPT WHERE SHOWN OTHERWISE
 DATE 05/05/2019 BY 1711.635

ESTIMATED PROJECT QUANTITIES				
ITEM NO.	SUDAS ITEM CODE	ITEM DESCRIPTION	UNIT	TOTAL
DIVISION 2				
2.01	2010-108-C-0	EARTHWORK		
		CLEARING AND GRUBBING	LS	--
2.02	2010-108-D-3	TOPSOIL, OFF-SITE	CY	--
2.03	2010-108-E-0	EXCAVATION, CLASS 10	LS	--
2.04	SPECIAL	BELOW GRADE EXCAVATION (CORE OUT)	CY	--
2.05	2010-108-G-0	SUBGRADE PREPARATION, 12 IN. DEPTH	SY	--
2.06	2010-108-H-0	SUBGRADE TREATMENT, CLASS C FLY ASH	TON	--
2.07	2010-108-I-0	SUBBASE, MODIFIED	SY	--
DIVISION 4				
SEWERS AND DRAINS				
4.01	4010-108-A-1	SANITARY SEWER GRAVITY MAIN, TRENCHED, TRUSS PVC, 8 IN. DIA.	LF	--
4.02	4010-108-A-1	SANITARY SEWER GRAVITY MAIN, TRENCHED, TRUSS PVC, 6 IN. DIA.	LF	--
4.03	4010-108-I-0	SANITARY SEWER CLEANOUT	EA	--
4.04	4010-108-A-1	STORM SEWER, TRENCHED, RCP, 42 IN. DIA.	LF	--
4.05	4010-108-A-1	STORM SEWER, TRENCHED, RCP, 36 IN. DIA.	LF	--
4.06	4020-108-A-1	STORM SEWER, TRENCHED, RCP, 30 IN. DIA.	LF	--
4.07	4020-108-A-1	STORM SEWER, TRENCHED, RCP, 24 IN. DIA.	LF	--
4.08	4020-108-A-1	STORM SEWER, TRENCHED, RCP, 18 IN. DIA.	LF	--
4.09	4020-108-A-1	STORM SEWER, TRENCHED, RCP, 15 IN. DIA.	LF	--
4.10	4020-108-A-1	STORM SEWER, TRENCHED, HDPE, 15 IN. DIA.	LF	--
4.11	4020-108-A-1	STORM SEWER, TRENCHED, HDPE, 12 IN. DIA.	LF	--
4.12	4020-108-A-1	STORM SEWER, TRENCHED, RCP, 12 IN. DIA.	LF	--
4.13	4020-108-A-1	STORM SEWER, TRENCHED, HDPE, 10 IN. DIA.	LF	--
4.14	4030-108-B-0	PIPE, APRON, RCP, 30 IN. DIA.	EA	--
4.15	4030-108-B-0	PIPE, APRON, RCP, 24 IN. DIA.	EA	--
4.16	4030-108-B-0	PIPE, APRON, RCP, 18 IN. DIA.	EA	--
4.17	4030-108-B-0	PIPE, APRON, RCP, 15 IN. DIA.	EA	--
4.18	4030-108-B-0	PIPE, APRON, RCP, 12 IN. DIA.	EA	--
4.19	4030-108-B-0	REMOVAL OF APRON, 42 IN. DIA.	EA	--
4.20	4030-108-B-0	PIPE APRON GUARD	EA	--
4.21	4040-108-A-0	SUBDRAIN, HDPE, 6 IN. DIA.	LF	--
4.22	4040-108-D-0	SUBDRAIN OUTLETS AND CONNECTIONS, HDPE, 6 IN. DIA.	EA	--
DIVISION 5				
WATER MAIN AND APPURTENANCES				
5.01	5010-108-A-1	WATER MAIN, TRENCHED, PVC, 8 IN. DIA.	LF	--
5.02	5010-108-C-1	FITTING SLEEVE, TAPPING SLEEVE, 12 IN. X 8 IN.	LF	--
5.03	5020-108-A-0	VALVE, GATE, 8 IN. DIA.	EA	--
5.04	5020-108-C-0	FIRE HYDRANT ASSEMBLY	EA	--
DIVISION 6				
STRUCTURES FOR SANITARY AND STORM SEWER				
6.01	6010-108-A-0	MANHOLE, TYPE SW-301, 48 IN. DIA.	EA	--
6.02	6010-108-A-0	MANHOLE, TYPE SW-401, 60 IN. DIA.	EA	--
6.03	6010-108-A-0	MANHOLE, TYPE SW-401, 48 IN. DIA.	EA	--
6.04	6010-108-B-0	INTAKE, TYPE SW-501	EA	--
6.05	6010-108-B-0	INTAKE, TYPE SW-505	EA	--
6.06	6010-108-B-0	INTAKE, TYPE SW-506	EA	--
6.07	6010-108-B-0	INTAKE, TYPE SW-506 MOD	EA	--
6.08	6010-108-B-0	INTAKE, TYPE SW-511	EA	--
6.09	6010-108-B-0	INTAKE, TYPE HDPE INLINE DRAIN	EA	--
6.10	6010-108-B-0	INTAKE, TYPE HDPE INLINE BASIN	EA	--
6.11	6010-108-C-0	DROP CONNECTION	EA	--
6.12	6010-108-G-0	CONNECTION TO EXISTING MANHOLE	EA	--
DIVISION 7				
STREETS AND RELATED WORK				
7.01	7010-108-A-0	PAVEMENT, PCC, 6 IN. REINFORCED	SY	--
7.02	7010-108-A-0	PAVEMENT, PCC, 6 IN.	SY	--
7.03	7010-108-A-0	PAVEMENT, PCC, 5 IN.	SY	--
7.04	7030-108-E-0	SIDEWALK, PCC, 4 IN.	SY	--
7.05	7030-108-G-0	DETECTABLE WARNING	SF	--
DIVISION 8				
TRAFFIC CONTROL AND SIGNALIZATION				
8.01	SECTION 1070	TRAFFIC CONTROL	LS	--
DIVISION 9				
SITE WORK AND LANDSCAPING				
9.01	9040-108-G-2	EROSION CONTROL MULCHING	AC	--
9.02	9040-108-G-2	EROSION CONTROL		--
9.03	9040-108-T-1	INLET PROTECTION DEVICE, ROCK	EA	--
DIVISION 11				
MISCELLANEOUS				
11.01	11030-108-B-0	SOLID WASTE COLLECTION	LS	--
11.02	11050-108-A-0	CONCRETE WASHOUT, ROLLOFF	EA	--

ESTIMATED REFERENCE INFORMATION	
ITEM NO.	DESCRIPTION
DATA LISTED BELOW IS FOR INFORMATIONAL PURPOSE ONLY AND SHALL NOT CONSTITUTE A BASIS FOR ANY EXTRA WORK ORDERS.	
2.01	THE 2018 EDITION OF THE SUDAS STANDARD SPECIFICATIONS MANUAL AND ALL CITY SUPPLEMENTAL SPECIFICATIONS SHALL APPLY TO ALL WORK PERFORMED ON THIS PROJECT EXCEPT AS MODIFIED HEREIN. REFER TO PROJECT SPECIFICATIONS FOR EXCEPTIONS TO THE TWO SPECIFICATIONS. ALL REFERENCES TO SECTIONS AND FIGURES ARE TO THE SUDAS STANDARD SPECIFICATIONS UNLESS OTHERWISE NOTED.
2.02	CLEAR AND GRUB ALL AREAS AFFECTED BY GRADING OPERATIONS. THE CONTRACTOR SHALL FIELD VERIFY CLEARING AND GRUBBING NEEDS PRIOR TO BIDDING. INCLUDES REMOVAL OF ANY EXISTING FIELD FENCE. ALL MATERIAL THAT IS REMOVED FROM THE PROJECT SHALL BECOME THE PROPERTY OF THE CONTRACTOR. DO NOT DISTURB CROPS OUTSIDE OF THE PROJECT LIMITS.
2.03	STRIP, SALVAGE AND SPREAD THE TOP 12 INCHES OF TOPSOIL. RESPREAD TOPSOIL WITHIN THE RIGHT OF WAY, ON BACKSLOPES AND IN DEVELOPED AREAS A MINIMUM OF 8 INCHES THICK. RESPREAD TOPSOIL IN AREAS THAT ARE FARMED A MINIMUM OF 12 INCHES THICK. TOPSOIL TO BE RESPREAD SHALL BE FREE OF ROCK AND DEBRIS AND BE SUITABLE FOR THE GROWTH OF GRASS. COORDINATE LOCATION OF STOCKPILE WITH OWNER.
2.05	EXCAVATION INCLUDES ALL WORK NECESSARY TO ACHIEVE PROPER GRADES AS SHOWN IN THE PLANS. NO PAYMENT FOR OVERHAUL SHALL BE ALLOWED. SHRINKAGE WAS ASSUMED TO BE 25%.
2.05	REFER TO SHEET C5.1 FOR TYPICAL LOCATIONS AND THICKNESS. QUANTITY BASED ON TWO-6 INCH LIFTS.
4.01, 4.02	REFER TO FIG. 3010.101 - TRENCH BEDDING AND BACKFILL ZONES AND FIG. 3010.103 - FLEXIBLE GRAVITY PIPE TRENCH BEDDING FOR CONSTRUCTION DETAILS. GRANULAR PIPE BEDDING SHALL BE CONSIDERED INCIDENTAL. SANITARY SEWER SHALL BE SOLID WALL PVC OR TRUSS PIPE. TELEWISE SANITARY SEWER PRIOR TO PAVING AND PROVIDE TELEVISION REPORT TO THE CITY IN HARD COPY AND ELECTRONIC FORMAT. TELEVISION SHALL BE CONSIDERED INCIDENTAL. CONNECTION TO EXISTING STORM SEWER SHALL BE CONSIDERED INCIDENTAL.
4.03	REFER TO FIG. 4010.203 - SANITARY SEWER CLEANOUT FOR CONSTRUCTION DETAILS.
8-10, 19	REFER TO FIG. 3010.101 - TRENCH BEDDING AND BACKFILL ZONES, FIG. 3010.102 - RIGID GRAVITY PIPE TRENCH BEDDING AND FIG. 3010.103 - FLEXIBLE GRAVITY PIPE TRENCH BEDDING FOR BEDDING AND BACKFILL DETAILS. GRANULAR PIPE BEDDING SHALL BE CONSIDERED INCIDENTAL. PIPE LENGTHS INCLUDE PIPE APRONS. TELEWISE STORM SEWER PRIOR TO PAVING AND PROVIDE TELEVISION REPORT TO THE CITY IN HARD COPY AND ELECTRONIC FORMAT. TELEVISION SHALL BE CONSIDERED INCIDENTAL. CONNECTION TO EXISTING STORM SEWER SHALL BE CONSIDERED INCIDENTAL. WHERE THE STORM SEWER CROSSES OVER THE WATER MAIN LOCATE ONE FULL LENGTH OF REINFORCED CONCRETE PIPE (RCP) WITH FLEXIBLE O-RING GASKET JOINTS SO BOTH JOINTS ARE LOCATED AS FAR AS POSSIBLE FROM THE WATER MAIN.
4.04-4.09, 4.12	REFER TO FIG. 4030.222 - CIRCULAR CONCRETE APRONS FOR CONSTRUCTION DETAILS. THE LAST THREE PIPE SECTION AND APRON SHALL BE CONNECTED WITH PIPE CONNECTORS. REFER TO IDOT STANDARD ROAD PLAN DR-121 - CONNECTED PIPE JOINTS FOR PIPE CONNECTOR DETAILS. CONNECTORS SHALL BE CONSIDERED INCIDENTAL.
4.14-4.18	REFER TO FIG. 4030.221 - RCP APRON SECTION FOOTING FOR CONSTRUCTION DETAILS. ALL APRONS SHALL HAVE FOOTINGS.
4.20	REFER TO FIG. 4030.224 - CONCRETE PIPE APRON GUARD FOR CONSTRUCTION DETAILS. ALL APRONS SHALL HAVE PIPE APRON GUARDS.
4.21	REFER TO FIG. 4040.231 - SUBDRAINS (CASE A - TYPE 1) AND SHEET C5.3 - SUBDRAIN TABULATION FOR CONSTRUCTION DETAILS. ALL FITTING AND POROUS BACKFILL SHALL BE CONSIDERED INCIDENTAL. DO NOT WRAP TRENCH IN ENGINEERING FABRIC. ALL ENCOUNTERED FIELD TILE SHALL BE DOCUMENTED AND CONNECTED TO PROPOSED SUBDRAIN CONNECTIONS TO PROPOSED SUBDRAIN SHALL BE CONSIDERED INCIDENTAL.
5.01	REFER TO FIG. 3010.101 - TRENCH BEDDING AND BACKFILL ZONES AND FIG. 3010.104 - PRESSURE PIPE TRENCH BEDDING FOR BEDDING AND BACKFILL DETAILS. GRANULAR PIPE BEDDING MATERIAL SHALL BE CONSIDERED INCIDENTAL. REFER TO FIG. 5010.101 FOR THRUST BLOCK DETAILS. REFER TO FIG. 5010.102 FOR TRACER WIRE DETAILS. CONNECTIONS TO EXISTING WATER MAIN, ALL FITTINGS, PIPE BEDDING MATERIAL, POLYETHYLENE ENCASEMENT, THRUST BLOCKS, AND TRACER WIRE SYSTEM SHALL BE CONSIDERED INCIDENTAL. CONTRACTOR SHALL INSTALL BENDS AND DEFLECT PIPE JOINTS PER SECTION 5010. PART 301, A.6 AS NECESSARY TO INSTALL HYDRANT ASSEMBLIES AT THEIR SPECIFIED OFFSET AND ROADWAY CENTERLINE AND TO FOLLOW THE WATER MAIN ALIGNMENT AS SHOWN IN THE PLANS.
5.02, 5.03	INCLUDES VALVE, VALVE BOX AND COVER, VALVE BOX EXTENSION, AND VALVE STEM EXTENSION.

ESTIMATED REFERENCE INFORMATION	
ITEM NO.	DESCRIPTION
DATA LISTED BELOW IS FOR INFORMATIONAL PURPOSE ONLY AND SHALL NOT CONSTITUTE A BASIS FOR ANY EXTRA WORK ORDERS.	
5.04	REFER TO FIG. 5020.201 - FIRE HYDRANT ASSEMBLY FOR FIRE HYDRANT CONSTRUCTION DETAILS. INCLUDES ANCHORING TEE, ANCHORING ELBOW, GATE VALVE, VALVE BOX, ANCHORING PIPE, ANCHORING COUPLING, ELBOWS, TRACER WIRE STATION, FIRE HYDRANT, AND THRUST BLOCKS. CONCRETE FOR THRUST BLOCKS SHALL BE CONSIDERED INCIDENTAL.
6.01	REFER TO FIG. 6010.301 - CIRCULAR SANITARY SEWER MANHOLE FOR CONSTRUCTION DETAILS. REFER TO FIG. 6010.601 - CASTINGS FOR SANITARY SEWER MANHOLES FOR CASTING DETAILS. TYPE A CASTINGS REQUIRED FOR ALL MANHOLES OUT OF PAVEMENT. TYPE B CASTINGS REQUIRED FOR ALL MANHOLES IN PAVEMENT. THE MAXIMUM HEIGHT OF ADJUSTING RINGS ALLOWED FOR MANHOLE CASTINGS IS 12 INCHES.
6.02, 6.03	REFER TO FIG. 6010.401 - CIRCULAR STORM SEWER MANHOLE FOR CONSTRUCTION DETAILS. REFER TO FIG. 6010.602 - CASTINGS FOR STORM SEWER MANHOLES FOR CASTING DETAILS. TYPE E CASTINGS REQUIRED FOR ALL MANHOLES OUTSIDE OF PAVEMENT. TYPE F CASTINGS REQUIRED FOR ALL MANHOLES IN PAVEMENT. THE MAXIMUM HEIGHT OF ADJUSTING RINGS ALLOWED FOR MANHOLE CASTINGS IS 12 INCHES.
6.04-6.08	REFER TO FIG. 6010.514 - BOXOUTS FOR GRATE INTAKES. REFER TO FIG. 6010.603 - CASTINGS FOR GRATE INTAKES FOR TYPE R GRATE DETAILS AND FIG. 6010.602 - CASTINGS FOR STORM SEWER MANHOLES FOR TYPE E CASTING DETAILS. THE MAXIMUM HEIGHT OF ADJUSTING RINGS ALLOWED FOR INTAKE CASTINGS IS 8 INCHES. THE MAXIMUM HEIGHT OF ADJUSTING RINGS ALLOWED FOR MANHOLE CASTINGS IS 12 INCHES.
6.04	REFER TO FIG. 6010.501 - SINGLE GRATE INTAKE FOR CONSTRUCTION DETAILS.
6.05	REFER TO FIG. 6010.505 - DOUBLE GRATE INTAKE FOR CONSTRUCTION DETAILS.
6.06, 6.07	REFER TO FIG. 6010.506 - DOUBLE GRATE INTAKE WITH MANHOLE FOR CONSTRUCTION DETAILS.
6.08	REFER TO FIG. 6010.511 - RECTANGULAR AREA INTAKE FOR CONSTRUCTION DETAILS.
6.11	REFER TO FIG. 6010.307 - DROP CONNECTION FOR SANITARY SEWER MANHOLE FOR CONSTRUCTION DETAILS. DROP CONNECTION SHALL BE CORE DRILLED AND A FLEXIBLE WATERTIGHT CONNECTION SHALL BE INSTALLED.
7.01	REFER TO FIG. 7030.101 - JOINTS FOR CONSTRUCTION DETAILS. REFER TO INTERSECTION SHEETS FOR JOINTING AND GEOMETRIC PLAN DETAILS. TYPICAL 'C' AND 'CD' JOINT SPACING IS 15 FEET. COARSE AGGREGATE FOR PCC PAVEMENT SHALL BE CLASS 3 DURABILITY.
7.04	REFER TO FIG. 7030.207 - CURB RAMP FOR CLASS B OR C SIDEWALK FOR CONSTRUCTION DETAILS. SIDEWALK SHALL BE 6 INCHES IN DEPTH FOR RAMPS AND TURNING SPACES. MINOR GRADING ADJACENT TO SIDEWALKS SHALL BE CONSIDERED INCIDENTAL.
7.05	REFER TO FIG. 7030.210 DETECTABLE WARNING PLACEMENT FOR CONSTRUCTION DETAILS. DETECTABLE WARNING PANELS SHALL BE INSTALLED PER SECTION 7030. DETECTABLE WARNING PANELS SHALL BE BRICK RED, PLASTIC PRE-MANUFACTURED PANELS.
8.01	REFER TO TRAFFIC CONTROL NOTES ON THIS SHEET. ALL TRAFFIC CONTROL SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD). THE CONTRACTOR SHALL INSTALL AND MAINTAIN ROAD BARRICADES AT THE END OF EXISTING PAVEMENT UNIT THE PROJECT IS ACCEPTED BY THE CITY.
9.01	INCLUDES ALL MATERIALS, EQUIPMENT, AND LABOR NEEDED TO PERFORM SEEDING. SEED MIXTURE SHALL BE TYPE 1 (PERMANENT LAWN MIXTURE). REFER TO SECTION 9010, 2.02A TYPE 1 (PERMANENT LAWN MIXTURE) FOR SEED MIXTURE. CONTRACTOR SHALL SEED ALL DISTURBED AREAS.
9.02	REFER TO SEPARATE STORM WATER POLLUTION PREVENTION PLAN (SWPPP) FOR CONSTRUCTION DETAILS.
9.03	REFER TO FIG. 9040.110 - RIP RAP FOR PIPE OUTLET ONTO FLAT GROUND AND FIG. 9040.111 - RIP RAP APRON FOR PIPE OUTLET INTO CHANNEL FOR CONSTRUCTION DETAILS. THICKNESS (T) EQUALS 18 INCHES. INSTALL ENGINEERING FABRIC UNDER ALL RIP RAP. ENGINEERING FABRIC SHALL BE CONSIDERED INCIDENTAL.

ALL QUANTITIES ESTIMATED FROM THE CONTRACT DOCUMENTS AND FIELD SURVEY. QUANTITIES MAY VARY FROM THE CONTRACT DOCUMENTS AND FIELD SURVEY. QUANTITIES MAY VARY FROM THE CONTRACT DOCUMENTS AND FIELD SURVEY.

DATE		REVISIONS		SUBMITTALS		DATE	
3405 S.E. CROSSROADS DRIVE, SUITE G GRIMES, IOWA 50111 PHONE: (515) 369-4400 FAX: (515) 369-4410				TECH: _____ ENGINEER: _____			
MIDAMERICAN ENERGY COMPANY RECIPLEX QUANTITIES AND REFERENCE NOTES							
WEST DES MOINES, IOWA CIVIL DESIGN ADVANTAGE							
C0.1 1711.635							



DEMOLITION NOTES

1. PRIOR TO ANY WORK AT THE SITE, CONTRACTOR SHALL EXAMINE ANY APPLICABLE DRAWINGS AVAILABLE FROM THE OWNER OR ENGINEER AND CONSULT WITH OWNERS PERSONNEL AND UTILITY COMPANY REPRESENTATIVES. NO COMPENSATION WILL BE ALLOWED FOR DAMAGE FROM FAILURE TO COMPLY WITH THIS REQUIREMENT.
2. PRIOR TO DEMOLITION, CONTRACTOR SHALL NOTIFY IN WRITING (48 HRS NOTICE) THE FOLLOWING:
 - A. CITY
 - B. APPROPRIATE UTILITY COMPANIES
 - C. OWNER
 - D. CIVIL DESIGN ADVANTAGE
 - E. ARCHITECT
3. DO NOT DISTURB EXISTING UTILITIES UNLESS OTHERWISE NOTED. COORDINATE REMOVAL OR ABANDONMENT OF ALL UTILITIES WITH THE APPROPRIATE UTILITY SUPPLIER AND REGULATORY AGENCIES.
4. PROTECT EXISTING UTILITIES THAT ARE TO REMAIN. THE LOCATIONS OF ALL UTILITIES INDICATED ON THE PLANS ARE TAKEN FROM EXISTING RECORDS. THE EXACT LOCATION AND ELEVATION OF ALL UTILITIES MUST BE DETERMINED BY THE CONTRACTOR. IT SHALL BE THE DUTY OF THE CONTRACTOR TO ASCERTAIN WHETHER ANY ADDITIONAL FACILITIES OTHER THAN THOSE SHOWN ON THE PLAN MAY BE PRESENT.
5. BACKFILL ALL EXCAVATIONS WITH CONCRETE MATERIAL COMPACTED TO 95% MAXIMUM STANDARD PROCTOR DRY DENSITY AND MOISTURE RANGE OF OPTIMUM MOISTURE TO 4% ABOVE OPTIMUM MOISTURE. TESTING OF BACKFILL TO BE BY A PROFESSIONAL ENGINEER EMPLOYED BY THE OWNER. IN THE EVENT OF A TEST FAILURE, ANY RETESTING SHALL BE PAID FOR BY THE CONTRACTOR.
6. FIELD VERIFY EXISTING GRADES AND LOCATION OF EXISTING UTILITIES, CONDUIT, LINES, PILES, TREES, PAVING, BUILDING AND OTHER SITE FEATURES PRIOR TO DEMOLITION AND IMMEDIATELY INFORM THE ENGINEER AND/OR OWNER OF ANY DISCREPANCIES.
7. DEMOLITION NOTES AS SHOWN ON THE PLAN ARE NOT ALL INCLUSIVE. CONTRACTOR TO ABANDON IN PLACE OR REMOVE AND DISPOSE OF ALL EXISTING SITE IMPROVEMENTS ABOVE AND BELOW GROUND TO COMPLY WITH THE GENERAL INTENT OF THIS DOCUMENT.
8. ALL CONSTRUCTION/DEMOLITION DEBRIS SHALL BE DEPOSITED AT OFFSITE IN FULL COMPLIANCE WITH CURRENT ENVIRONMENTAL REGULATIONS.
9. CONSTRUCTION LIMITS SHALL BE CONFINED TO THE SITE BOUNDARY AS NOTED. ANY DAMAGE TO PROPERTIES OUTSIDE THE SITE BOUNDARY SHALL BE AT THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
10. ALL WORK SHALL BE IN ACCORDANCE WITH OSHA STANDARDS. NOTHING INDICATED ON THE DRAWINGS SHALL EXEMPT THE CONTRACTOR FROM COMPLYING WITH ANY APPROPRIATE SAFETY REGULATIONS.
11. CONTACT IOWA SHIRMAN NOR SHON DIVISION 222-3480 TO PICK UP ANY TRAFFIC SIGNS THAT ARE REMOVED.
12. REMOVAL LIMITS FOR THE PROPOSED DRIVEWAY APPROACH WILL BE 3.5 FT FROM THE BACK OF CURB AND TO THE NEAREST TRANSVERSE JOINT ON OTHER END OF THE RADUS.

TRAFFIC CONTROL NOTES

1. ALL APPLICABLE CITY PERMITS, INCLUDING BUT NOT LIMITED TO CLOSURE PERMITS, SHALL BE OBTAINED PRIOR TO ANY CONSTRUCTION WITHIN CITY EDL OR LAKE CLOSURES.
2. ALL TRAFFIC CONTROL SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).
3. PERMANENT SIGNING THAT CONVEYS A MESSAGE CONTRARY TO THE MESSAGE OF TEMPORARY SIGNING AND NOT APPLICABLE TO THE WORKING CONDITIONS SHALL BE COVERED BY THE CONTRACTOR WHEN DIRECTED BY THE CITY.
4. THE CONTRACTOR SHALL COORDINATE HIS TRAFFIC CONTROL WITH OTHER CONSTRUCTION PROJECTS IN THE AREA.
5. SIDEWALK CLOSED SIGNS REQUIRED FOR ALL SIDEWALK CLOSURES.
6. THE CONTRACTOR IS CAUTIONED NOT TO OBSTRUCT NOR REMOVE ANY EXISTING PAVEMENT, NOR TO DISTURB THE EXISTING TRAFFIC PATTERNS MORE THAN IS NECESSARY FOR THE PROPER EXECUTION OF THE WORK.
7. ALL SIGNING AND LANE STRIPING WILL NEED TO COMPLY WITH MUTCD. MAINTENANCE AND REPLACEMENT OF THE SIGNING AND STRIPING WILL BE THE RESPONSIBILITY OF THE APPLICANT.

**FOUND MONUMENTS
 PROJECT CONTROL POINTS**

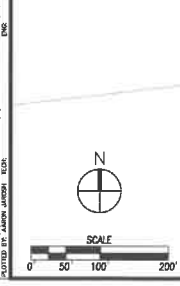
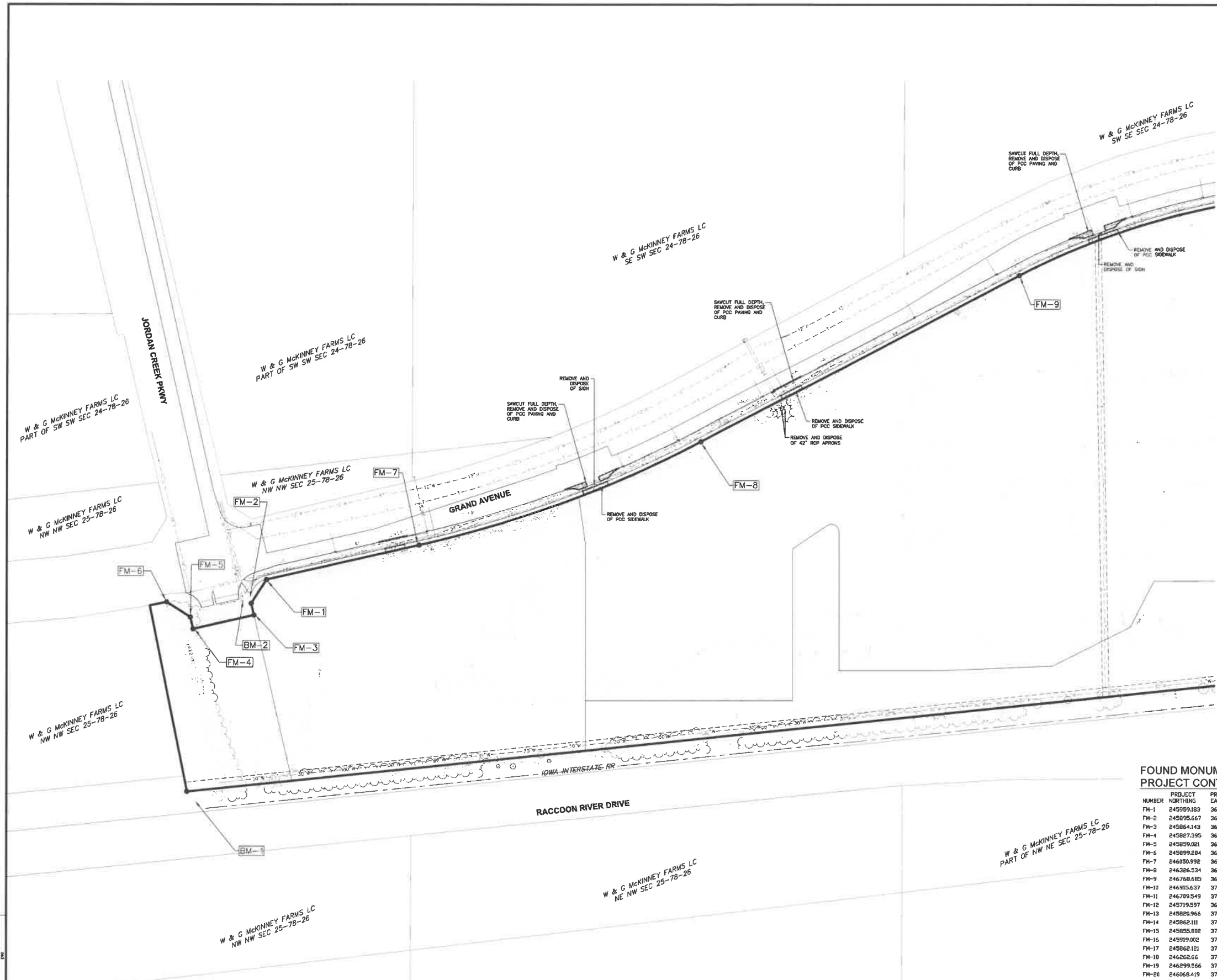
NUMBER	PROJECT NORTHING	PROJECT EASTING	STATE PLANE NORTHING	STATE PLANE EASTING	ELEVATION	DESCRIPTION
FM-1	24599183	366743443	560841348	1956585196	69.635	1/2" REBAR
FM-2	245895667	366703508	560778091	1956544934	67.635	1/2" REBAR
FM-3	245884143	366716659	560746325	1956531843	60.438	1/2" REBAR
FM-4	245887395	366549631	560710802	1956390568	60.925	1/2" REBAR
FM-5	245899021	366342415	560742471	1956383353	62.201	1/2" REBAR
FM-6	245899284	366479141	560783131	1956320541	62.051	1/2" REBAR
FM-7	246050392	367147285	560930586	1956969578	65.967	1/2" REBAR
FM-8	246326534	367894493	561201361	1957738457	64.691	1/2" REBAR
FM-9	246768685	368738217	561381116	1958984899	64.303	1/2" REBAR
FM-10	246915637	370149354	561776102	1959997023	62.086	1/2" REBAR
FM-11	246789549	370335161	561564418	1960881232	61.249	1/2" REBAR
FM-12	245719597	369666155	560583251	1959066088	99.623	1/2" REBAR
FM-13	245820966	370638312	560678444	1960478788	57.023	1/2" REBAR
FM-14	245862111	371036931	560717026	1960877627	56.586	1" GP
FM-15	245855802	37099228	560711031	1960832941	57.264	RDW RAIL
FM-16	245919002	371581684	560770486	1961422684	57.448	1/2" REBAR CAP UNREADABLE
FM-17	245862121	371037000	560717056	1960877696	56.352	3/4" IP NO CAP
FM-18	246626266	371543372	561114358	1961386256	53.288	1/2" REBAR CAP 11579
FM-19	246699566	371564828	561131105	1961410298	55.946	1/2" REBAR CAP 11579
FM-20	246068419	371293681	560920256	1961345632	52.969	1/2" REBAR CAP 11579
FM-21	246014147	371233725	560867194	1961175254	52.646	1/2" REBAR NO CAP
FM-22	246011608	371036324	560866533	1960978168	52.209	1/2" REBAR CAP 11579
FM-23	246065104	370727916	560921988	1960569931	52.836	1/2" REBAR CAP 11579
FM-24	246615017	370766006	561471603	1960611505	54.877	1/2" REBAR NO CAP
FM-25	246680631	370778370	561537132	1960624284	59.386	1/2" REBAR NO CAP
FM-26	246627057	370738629	561483816	1960594207	56.926	1/2" REBAR CAP 11579
FM-27	246249471	370469222	561107977	1960312433	53.094	1/2" REBAR CAP 11579
FM-28	246102390	370419551	560961226	1960261834	52.203	1/2" REBAR NO CAP
FM-29	245973649	370308370	560833204	1960149848	52.528	1/2" REBAR NO CAP
FM-30	245917576	370173933	560779989	1960015059	52.498	1/2" REBAR CAP 11579
FM-31	245917878	369963828	560779624	1959804988	52.781	1/2" REBAR NO CAP
FM-32	246568491	371035401	561423373	1960890577	61.199	1/2" REBAR NO CAP
FM-33	246509595	371169956	561363630	1961014745	62.218	3/4" IP CAP 14775

BENCHMARKS

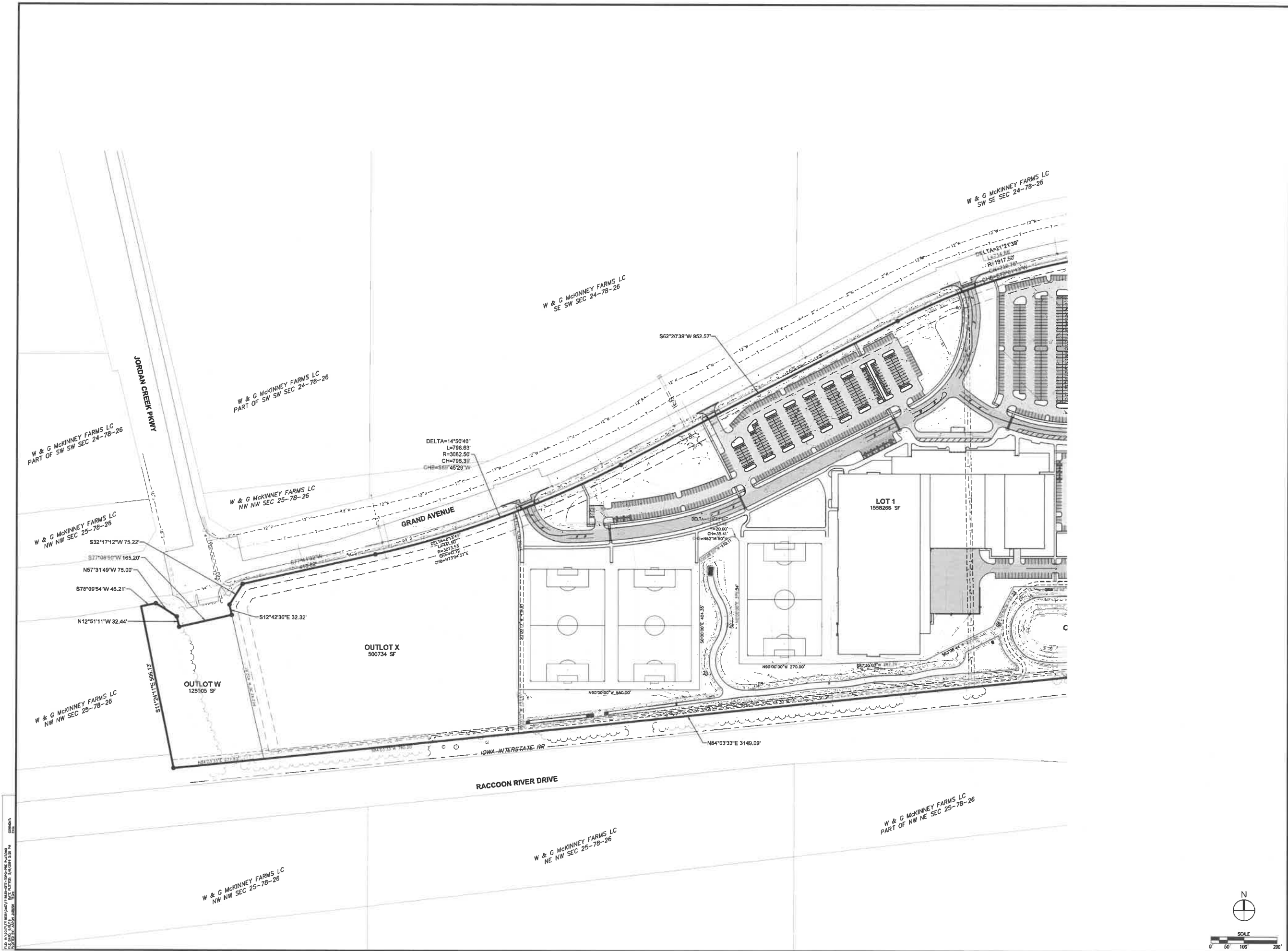
- BM-1 WEST DES MOINES USGS C BENCHMARK LOCATED 1.3 MILES WEST OF SOUTH 90TH STREET ALONG THE IOWA INTERSTATE RAILROAD, IMMEDIATELY NORTH OF RACCOON RIVER DRIVE, TOP OF WEST END OF NORTH HEADWALL OF CONCRETE CULVERT. ELEVATION=61.06
- BM-2 WEST DES MOINES USGS E BENCHMARK LOCATED IN THE SOUTH END OF THE WEST ABUTMENT OF RAILROAD BRIDGE. ELEVATION=71.49
- BM-3 ARROW ON HYDRANT AT SOUTHEAST CORNER OF JORDAN CREEK PARKWAY AND GRAND AVENUE. ELEVATION=70.84

UTILITY WARNING

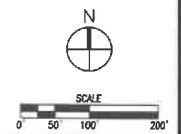
THE UTILITIES SHOWN HAVE BEEN LOCATED FROM FIELD SURVEY AND RECORDS OBTAINED BY THIS SURVEYOR. THE SURVEYOR MAKES NO GUARANTEE THAT THE UTILITIES SHOWN COMPRISE ALL THE UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UTILITIES SHOWN ARE IN THE EXACT LOCATION SHOWN. A REQUEST WAS MADE TO IOWA ONE CALL FOR THE UTILITIES PROVIDERS TO LOCATE THEIR UTILITIES IN THE FIELD.



DATE: 11/15/2011
 TIME: 10:00 AM
 DRAWN BY: J. J. JENSEN
 CHECKED BY: J. J. JENSEN



DATE: 11/15/2011
 TIME: 10:00 AM
 PROJECT: MIDAMERICAN ENERGY COMPANY RECPLX PRELIMINARY PLAT
 DRAWN BY: J. J. JENSEN
 CHECKED BY: J. J. JENSEN
 SCALE: AS SHOWN



REVISIONS	DATE	BY	REASON

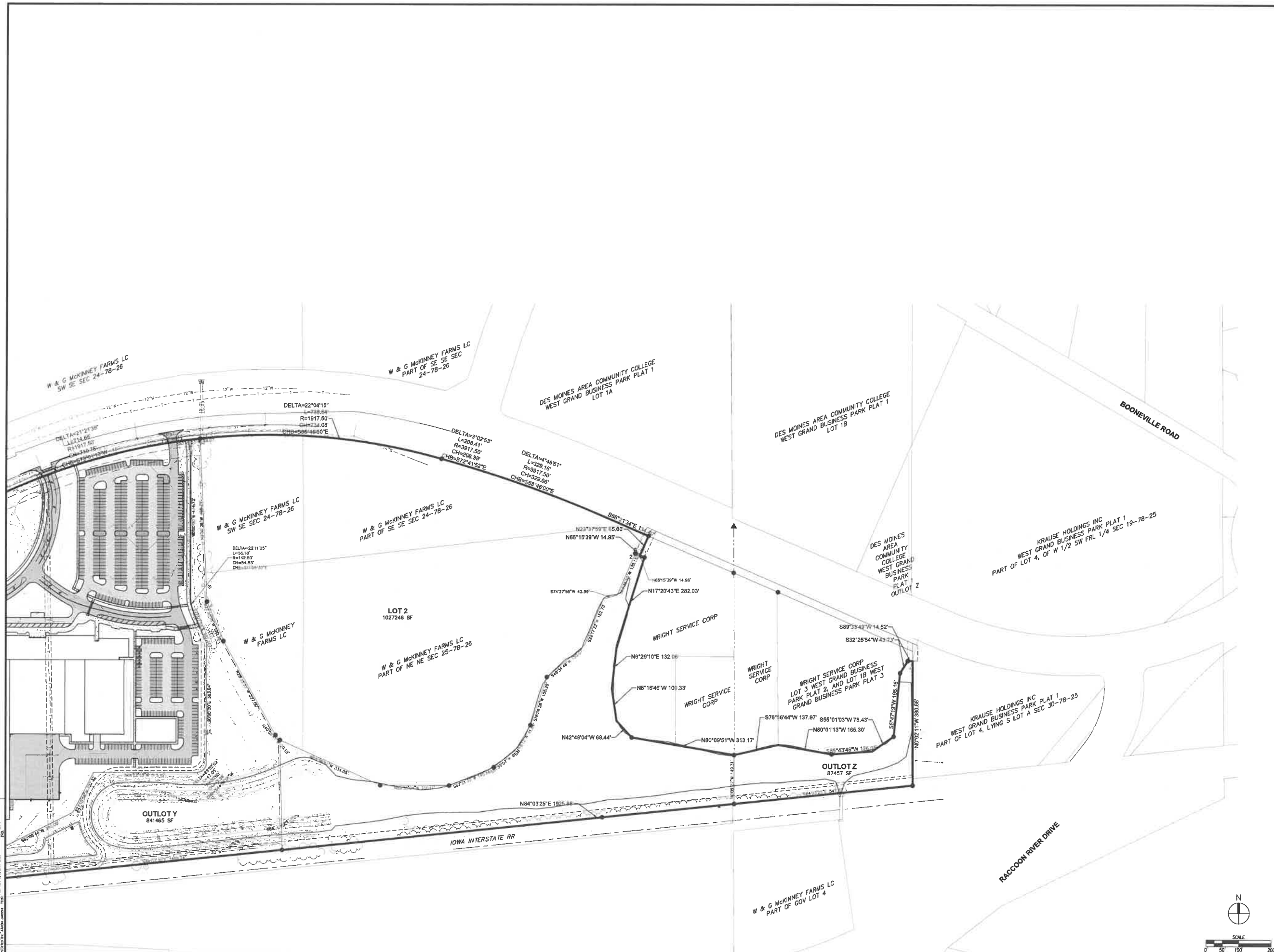
3405 S.E. CROSSROADS DRIVE, SUITE G
 GRIMES, IOWA 50111
 PHONE: (515) 369-4400 FAX: (515) 369-4410
 ENGINEER: _____
 TECH: _____



WEST DES MOINES, IOWA
 CIVIL DESIGN ADVANTAGE

MIDAMERICAN ENERGY COMPANY RECPLX
PRELIMINARY PLAT

C1.3
 1711.635



DATE	06/06/16
REVISIONS	
SECOND SUBMITTAL	
FIRST SUBMITTAL	

3405 S.E. CROSSROADS DRIVE, SUITE G
 GRIMES, IOWA 50111
 PHONE: (515) 389-4400 FAX: (515) 369-4410

TECH: _____
 ENGINEER: _____

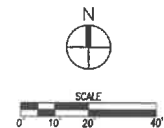
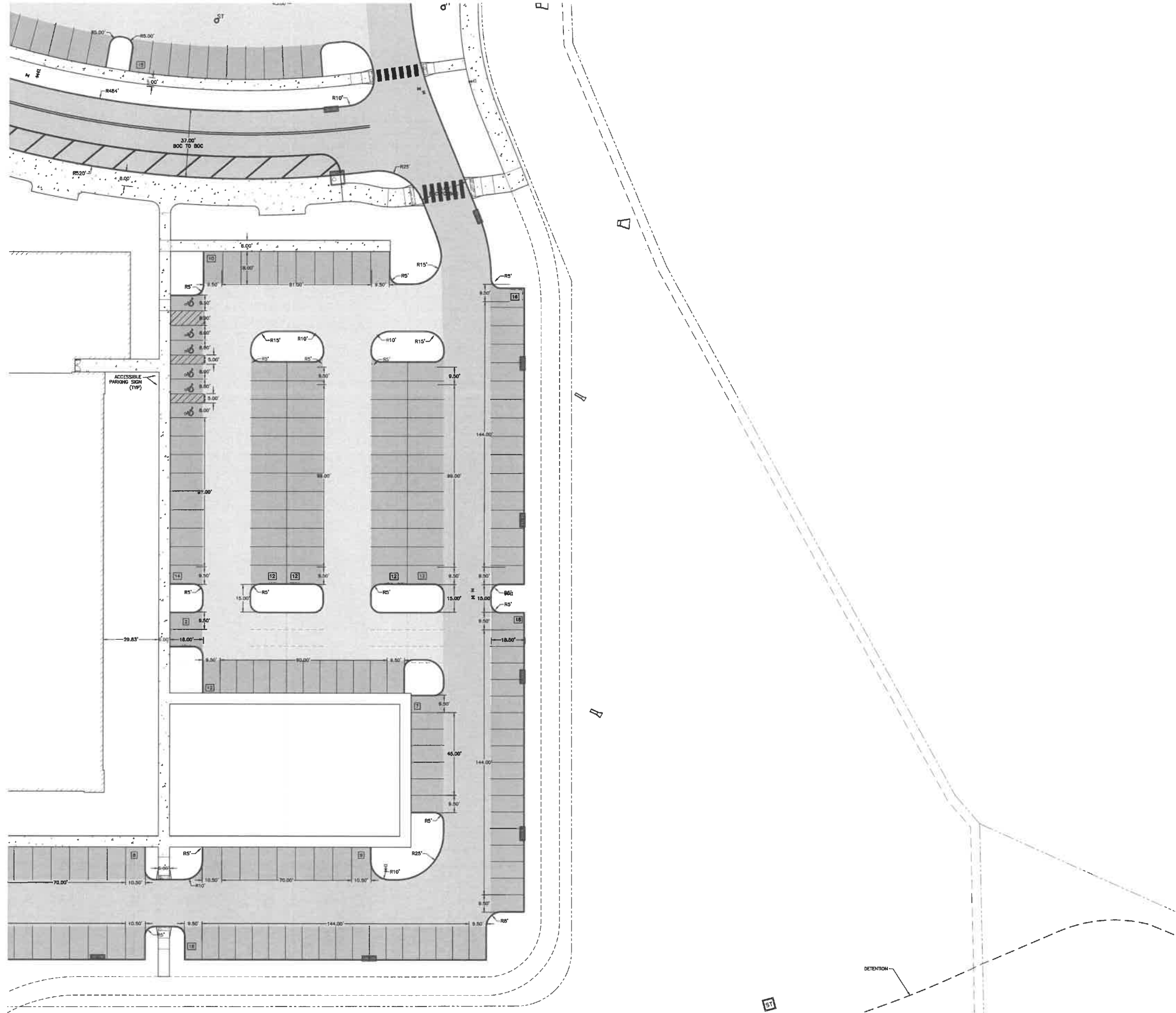
EA
 CIVIL DESIGN ADVANTAGE

WEST DES MOINES, IOWA

MIDAMERICAN ENERGY COMPANY RECPLX
PRELIMINARY PLAT

C1.4
 1711.635

DATE: 11/15/11
 DRAWN BY: J. J. JOHNSON
 CHECKED BY: J. J. JOHNSON
 PROJECT: 11-001-0001



MIDAMERICAN ENERGY COMPANY RECIPLEX
 DIMENSION PLAN



WEST DES MOINES, IOWA

ENGINEER:

TECH:

3405 S.E. CROSSROADS DRIVE, SUITE G
 GRIMES, IOWA 50111
 PHONE: (515) 369-4400 FAX: (515) 369-4410

REVISIONS

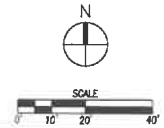
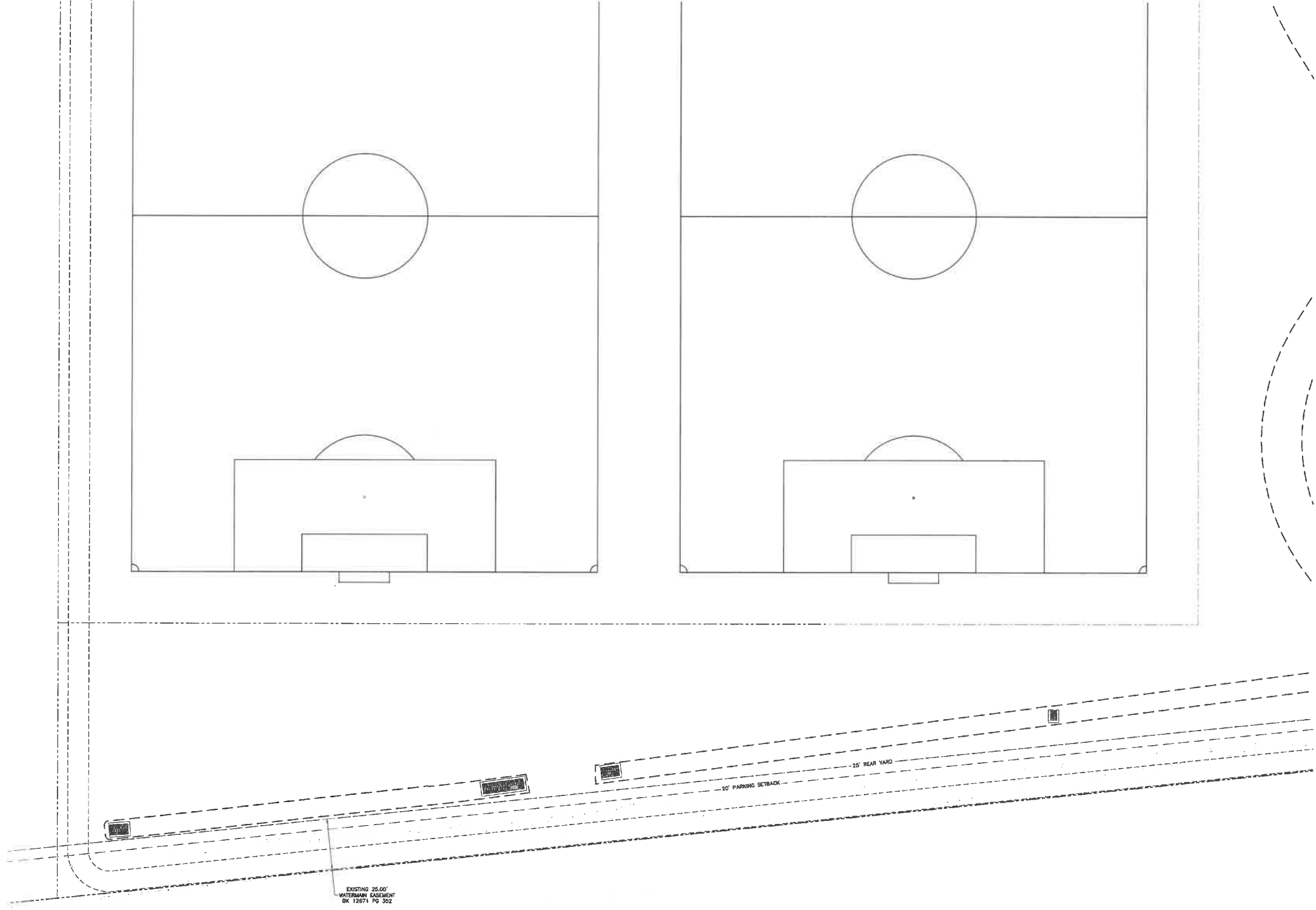
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MIDAMERICAN ENERGY COMPANY RECPEX
DIMENSION PLAN



WEST DES MOINES, IOWA

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 PHONE: (515) 369-4400 FAX: (515) 369-4410

ENGINEER:

TECH:

REVISIONS

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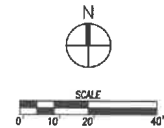
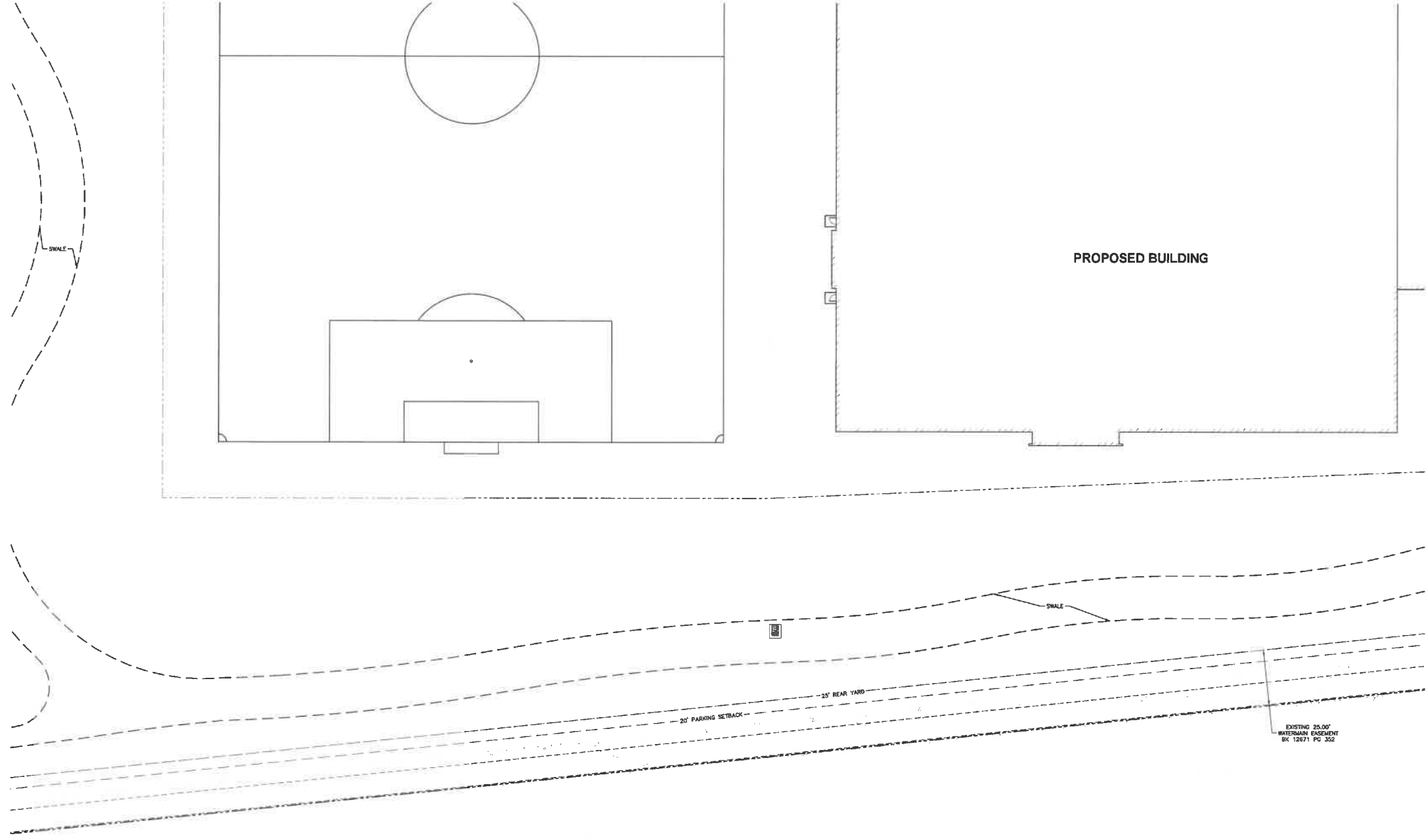
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09/20/11

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CHECKED BY: J. W. JONES
DATE: 11/17/10 1:27 PM



**MIDAMERICAN ENERGY COMPANY RECIPLEX
DIMENSION PLAN**

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TECH:

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GRIMES, IOWA 50111
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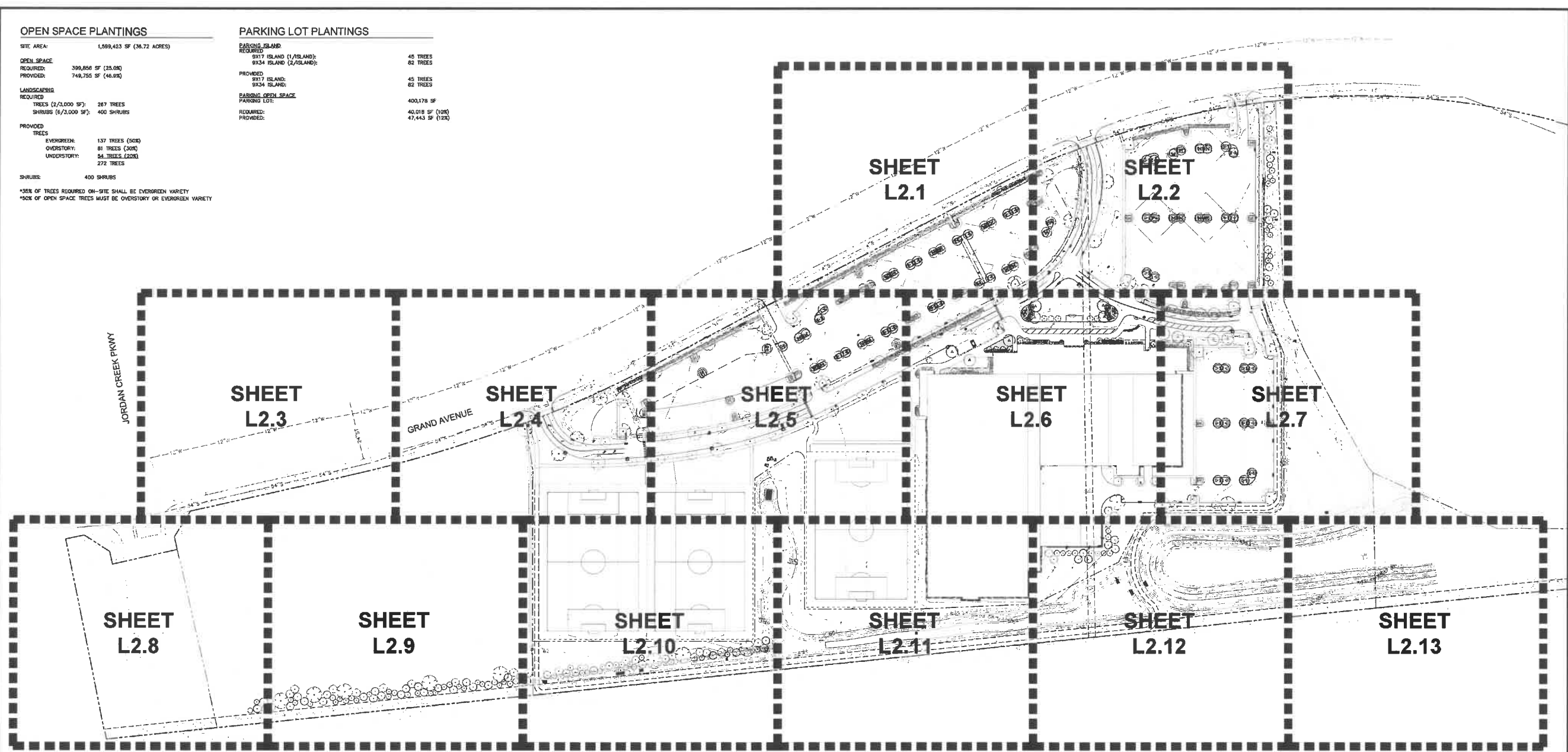
OPEN SPACE PLANTINGS

SITE AREA:	1,589,423 SF (36.72 ACRES)
OPEN SPACE REQUIRED:	399,856 SF (23.0%)
PROVIDED:	749,755 SF (46.8%)
LANDSCAPING REQUIRED	
TREES (1/2,000 SF):	267 TREES
SHRUBS (1/2,000 SF):	400 SHRUBS
PROVIDED	
TREES	
EVERGREEN:	137 TREES (50%)
OVERSTORY:	81 TREES (30%)
UNDERSTORY:	54 TREES (20%)
	272 TREES
SHRUBS:	400 SHRUBS

*5% OF TREES REQUIRED ON-SITE SHALL BE EVERGREEN VARIETY
 *50% OF OPEN SPACE TREES MUST BE OVERSTORY OR EVERGREEN VARIETY

PARKING LOT PLANTINGS

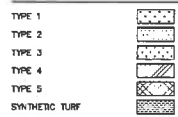
PARKING ISLAND REQUIRED	
9217 ISLAND (1/ISLAND):	45 TREES
9234 ISLAND (2/ISLAND):	82 TREES
PROVIDED	
9217 ISLAND:	45 TREES
9234 ISLAND:	82 TREES
PARKING OPEN SPACE PARKING LOT:	
REQUIRED:	400,178 SF
PROVIDED:	40,018 SF (10%)
	47,443 SF (12%)



LANDSCAPE NOTES

- LOCATE ALL UTILITIES BEFORE ANY PLANTING BEGINS.
- THE MOST RECENT EDITION OF THE A.S.P. STANDARD SPECIFICATIONS AND ALL CITY SUPPLEMENTALS, IF APPLICABLE, SHALL APPLY TO ALL WORK ON THIS PROJECT UNLESS OTHERWISE NOTED.
- TYPE, SIZE AND QUALITY OF PLANT MATERIAL SHALL CONFORM TO THE MOST CURRENT EDITION OF THE AMERICAN STANDARD FOR NURSERY STOCK AND 2001 ALL PLANT MATERIAL SHALL BE HEALTHY SPECIMENS WITHOUT DEFOLIATION, VIDS AND OPEN SPACES, WITH WELL DEVELOPED BRANCH AND ROOT SYSTEMS, TRUE TO HEIGHT, SHAPE AND CHARACTER OF GROWTH OF THE SPECIES OR VARIETY.
- BACKFILL TO TOP OF CURB (MINUS 1 1/2" FOR SOIL, IF REQ.)
- WEED PREVENTER (PRE-EMERGENT) SHALL BE SPREAD OVER SOIL AFTER PLANTING AND BEFORE BUILDING IN ALL PLANTING BEDS PER MANUFACTURER'S RECOMMENDATIONS.
- SHREDED HARDWOOD WULF SHALL BE PLACED AROUND ALL TREES, SHRUBS AND IN ALL PLANTING BEDS TO A (MIN) DEPTH OF 3"
- ALL EDGING SHALL BE SPREAD OUT EDGE.
- PLANT QUANTITIES ARE SHOWN FOR INFORMATION ONLY. THE DRAWING SHALL PREVAIL IF ANY CONFLICTS ARISE.
- ALL TREES SPECIES IN THE PUBLIC R.O.W. SHALL BE PICKED UP BY THE CONTRACTOR AT THE END OF EACH WORK DAY.
- CONTRACTOR SHALL WARRANTY ALL PLANT MATERIALS FOR A PERIOD OF ONE YEAR FROM DATE OF INSTALLATION.

SEED MIX



TYPE 2 SEED (PERMANENT ATHLETIC TURF)

- SHALL BE "VITALITY HD SPORT 2.0 BLEND" AS MANUFACTURED BY LANDMARK TURF & NATIVE SEED, OR APPROVED SUBSTITUTE.
 - USED FOR TURF GRASS WITH SOCCER FIELDS.
 - APPLICATION RATE: PER MANUFACTURER'S RECOMMENDATIONS.
 - SEEDING DATES: MARCH 1 - MAY 31, AUGUST 10 - SEPTEMBER 30.
- FERTILIZERS FOR TYPE 2 SEED AREAS**
- PRE-SEEDING FERTILIZER
 - SHALL BE MYCO-REPLENISH (3-3-3) ORGANIC FERTILIZER WITH MYCORRHIZAE, AS MANUFACTURED BY EARTHWORKS NATURAL ORGANIC PRODUCTS, INC., OR APPROVED SUBSTITUTE.
 - TO BE INCORPORATED INTO SOIL PRIOR TO SEEDING.
 - POST-SEEDING FERTILIZER
 - SHALL BE 21-22-4 FERTILIZER WITH 0.6% MESOTRIONE HERBICIDE, AS MANUFACTURED BY THE AMERSONS PLANT NUTRIMENT GROUP, OR APPROVED SUBSTITUTE.
 - TO BE APPLIED ON TOP SOIL AFTER SEEDING.

TYPE 1 SEED (PERMANENT LAWN)

- SHALL BE "TRESQUE" AS MANUFACTURED BY UNITED SEEDS, INC., OR APPROVED SUBSTITUTE.
 - USED FOR TURF GRASS.
 - APPLICATION RATE: 10 LBS. PER 1,000 SQUARE FEET.
 - SEEDING DATES: MARCH 1 - MAY 31, AUGUST 10 - SEPTEMBER 30.
- FERTILIZER FOR TYPE 1 SEED AREAS**
- USE FERTILIZER OF THE GRADE, TYPE, AND FORM SPECIFIED, THAT COMPLIES WITH RULES OF THE IOWA DEPARTMENT OF AGRICULTURE AND LAND STEWARDSHIP AND THE FOLLOWING REQUIREMENTS:
 - GRADE: IDENTIFY THE GRADE OF FERTILIZER ACCORDING TO THE PERCENT NITROGEN (N), PERCENT OF AVAILABLE PHOSPHORIC ACID (P2O5), AND PERCENT WATER SOLUBLE POTASSIUM (K2O). IN THAT ORDER, AND BASE APPROVAL ON THAT IDENTIFICATION. THE CONTRACTOR MAY SUBSTITUTE OTHER FERTILIZER CONTAINING ANALYSE PERCENTAGES DIFFERENT FROM THOSE SPECIFIED, PROVIDED THAT THE MINIMUM AMOUNTS OF ACTUAL NITROGEN, PHOSPHATE, AND POTASH PER ACRE ARE SURPASSED, AND THAT IN NO CASE DOES THE TOTAL AMOUNT PER ACRE OF THE THREE FERTILIZER ELEMENTS BE EXCEEDED BY 30% OF THE FOLLOWING MINIMUM AMOUNTS:
 - FOR CONVENTIONAL SEEDING, PERMANENT: APPLY A 13-13-13 COMMERCIAL FERTILIZER OR THE EQUIVALENT UNITS OF NITROGEN, PHOSPHATE, AND POTASH AT THE RATE OF 450 POUNDS PER ACRE.
 - FOR CONVENTIONAL SEEDING, TEMPORARY: APPLY COMMERCIAL FERTILIZER TO ALL SEEDED AREAS AT THE RATE OF 450 POUNDS PER ACRE OF 13-13-13 (OR EQUIVALENT) UNLESS OTHERWISE SPECIFIED IN THE CONTRACT DOCUMENTS.
 - FOR HYDRALIC SEEDING: APPLY FERTILIZER IN COMBINATION WITH SEEDING BY A HYDRALIC SEEDER AND AS SPECIFIED IN IOWA DOT ARTICLE 2601.03, B, APPLY A 13-13-13 COMMERCIAL FERTILIZER OR THE EQUIVALENT UNITS OF NITROGEN, PHOSPHATE, AND POTASH AT THE RATE OF 450 POUNDS PER ACRE.
 - FOR PREMIATED SEEDING: BASED ON THE COMPOST RESIDENT ANALYSE, SUPPLY ANY ADDITIONAL COMMERCIAL FERTILIZER NECESSARY TO MEET THE 13-13-13 UNITS OF NITROGEN, PHOSPHATE, AND POTASH AT THE RATE OF 450 POUNDS PER ACRE AS THE COMPOST IS APPLIED.
 - TYPE: USE FERTILIZER THAT CAN BE UNIFORMLY DISTRIBUTED BY THE APPLICATION EQUIPMENT. FURNISH FERTILIZER EITHER AS SEPARATE INGREDIENTS OR IN CHEMICALLY-COMBINED FORM.

TYPE 5 SEED (EMERGENT)

USE THE FOLLOWING SEED MIXTURE FOR AREAS DESIGNATED FOR EMERGENT SEEDING - UP TO 3 SPECIES MAY BE OMITTED FROM SEED MIX TO ACCOMMODATE SUPPLIER AVAILABILITY:

SCIENTIFIC NAME	COMMON NAME	SEEDING RATE
ADIRUM CALAMUS	SWAMP FLAG	2.0 LB PLS/ACRE
AJISMA PLANTAGO-AQUATICA	WATER PLANTAIN	2.0 LB PLS/ACRE
ASCLEPIAS INCARNATA	SWAMP MILKWEED	1.0 LB PLS/ACRE
VALTERIA ORABIS	RED WING GRASS	2.0 LB PLS/ACRE
CAREX HYSTERICHA	PORCUPINE SEDGE	2.0 LB PLS/ACRE
CAREX SCOPARIA	BROOM SEDGE	2.0 LB PLS/ACRE
CAREX VULPINOIDEA	FOX SEDGE	2.0 LB PLS/ACRE
HELENUM AUTUMNALE	SNEEZEWEED	1.0 LB PLS/ACRE
LOBELIA SPHELICA	GREAT BLUE LOBELIA	1.0 LB PLS/ACRE
SAGITTARIA LATIFOLIA	COMMON ARROWWEED	1.0 LB PLS/ACRE
SCIRPUS ACUTUS	HARD STEM BULRUSH	2.0 LB PLS/ACRE
SCIRPUS ATROVIRENS	DARK GREEN BULRUSH	1.0 LB PLS/ACRE
SCIRPUS VALLIS	SOFT-STEM BULRUSH	1.0 LB PLS/ACRE
SPARTINA PECTINATA	PRAIRIE COOD GRASS	2.0 LB PLS/ACRE

TYPE 4 SEED (WET MEADOW)

USE THE FOLLOWING SEED MIXTURE FOR AREAS DESIGNATED FOR WET MEADOW SEEDING - UP TO 3 SPECIES MAY BE OMITTED FROM SEED MIX TO ACCOMMODATE SUPPLIER AVAILABILITY.

SEEDING DATES: APRIL 1 - JUNE 30, AUGUST 1 - AUGUST 31

SCIENTIFIC NAME	COMMON NAME	SEEDING RATE
CENTAUDEA OATS	OATS	0.50 BU/ACRE
AMROPODON GERARDI	RG BLUESTEM	3.00 LB PLS/ACRE
ASCLEPIAS INCARNATA	SWAMP MILKWEED	1.00 OZ PLS/ACRE
ASTER NOVAE-ANGLIAE	NEW ENGLAND ASTER	0.50 OZ PLS/ACRE
ELYMUS CANADENSIS	CANADA WILD-RYE	1.00 LB PLS/ACRE
ELYMUS VIRGINICUS	VIRGINIA WILD-RYE	0.25 LB PLS/ACRE
GENTIANA ANDREWSII	CLOSED BOTTLE GENTIAN	0.50 OZ PLS/ACRE
GLYCYRRHIZA STRATA	FOUR LEAFED GRASS	0.125 LB PLS/ACRE
HELENUM AUTUMNALE	SNEEZEWEED	0.50 OZ PLS/ACRE
LEERSIA ORYZOIDES	ROCK CUTGRASS	0.125 LB PLS/ACRE
LATRIS PYCNOSTACHYA	PRAIRIE BLAZING STAR	1.00 OZ PLS/ACRE
LOBELIA SPHELICA	GREAT BLUE LOBELIA	0.10 OZ PLS/ACRE
PHYSCOSTEGIA VIRGINIANA	ORCHARD PLANT	0.15 OZ PLS/ACRE
PTICHANTHEMUM VIRGINIANUM	MOUNTAIN MINT	0.10 OZ PLS/ACRE
ROSA SP. (ISLAND)	MEADOW ROSE	1.00 OZ PLS/ACRE
REDROCKIA SUBTENDIOSA	BLACK-EYED SUSAN	1.50 OZ PLS/ACRE
SCIRPUS ATROVIRENS	DARK GREEN BULRUSH	0.125 LB PLS/ACRE
SPARTINA PECTINATA	PRAIRIE COODGRASS	0.50 LB PLS/ACRE
THALICTRUM BASTYCARPUM	MEADOW RUE	2.00 OZ PLS/ACRE
TRADISCANTIA OHIENSIS	OHIO SPIDERWORT	1.00 OZ PLS/ACRE
VERONICASTRUM VIRGINICUM	CLAY'S ROSE	0.25 OZ PLS/ACRE
ZEA AUREA	GOLDEN ALEXANDERS	2.00 OZ PLS/ACRE

TYPE 3 SEED

SHALL BE "DRY SITE/SHORT PRAIRIE SEED MIX" AS SUPPLIED BY ION EXCHANGE, OR APPROVED SUBSTITUTE.

SEEDING DATES: APRIL 1 - JUNE 30 (VERIFY WITH SUPPLIER)

SOURCE	APPLICATION RATE
ION EXCHANGE	10 - 15 LBS/ACRE
50% WILDLOWERS, 50% GRASSES (BY WEIGHT)	

INSTALL PER SUPPLIER'S RECOMMENDATIONS.

PLANT SCHEDULE	QTY	COMMON NAME	BOTANICAL NAME	CONDITION AND SIZE
DECIDUOUS TREES	56	SILVER MAPLE	ACER SACCHARINUM	846, 2" CALIPER
	28	DOWNY SERVICEBERRY	AMELANCHIER ARBOREA 'AUTUMN BRILLIANCE'	846, 1.5" CALIPER
	24	HERITAGE RIVER BIRCH	BETULA NIGRA 'HERITAGE'	846, 6' HEIGHT, MULTI-STEM
	15	PAGODA DOGWOOD	CORNUS ALTERNIFOLIA	846, 1.5" CALIPER
	9	THORNLESS HAWTHORN	CRATAEGUS ORUS-GALLI 'NORMS'	846, 1.5" CALIPER
	2	AMERICAN HORHORNBEAM	OSTREA VIRGINICA	846, 1.5" CALIPER
	22	QUAKING ASPEN	POPULUS TRENULOIDES	846, 2" CALIPER
	25	NORTHERN PIN OAK	QUERCUS ELIPSOIDALIS	846, 2" CALIPER
	31	CHINKAPIN OAK	QUERCUS MUEhlenBERGII	846, 2" CALIPER
	50	REDMOND AMERICAN LINEN	TILIA AMERICANA 'REDMOND'	846, 2" CALIPER
EVERGREEN TREES	32	BLACK HILLS SPRUCE	PICEA GLAUCA 'BENSAATA'	846, 6' HEIGHT
	52	WHITE PINE	PIRUS STROBUS	846, 6' HEIGHT
	53	BLUE DOUGLAS FIR	PSEUDOTSUGA MENZIESII GLAUCIA	846, 6' HEIGHT
SHRUBS	113	REGENCY SERVICEBERRY	AMELANCHIER ALBAQUILA 'REGENCY'	3 GAL
	121	'CARDINAL' RED-TWO DOGWOOD	CORNUS SERICEA 'CARDINAL'	3 GAL
	76	SEA GREEN JUMPER	JUNIPERUS CHINENSIS 'SEA GREEN'	3 GAL
	8	SKYROCKET JUMPER	JUNIPERUS SCOPULORUM 'SKYROCKET'	3 GAL
	68	ABBOTSWOOD POTENTILLA	POTENTILLA FRUTICOSA 'ABBOTSWOOD'	3 GAL

ANNUALS/PERENNIALS	QTY	COMMON NAME	BOTANICAL NAME	CONDITION AND SIZE
	228	PINK BEAUTY POTENTILLA	POTENTILLA FRUTICOSA 'PINK BEAUTY'	3 GAL
	128	MEADOWSWEET	SPRAEA ALBA	3 GAL
	8	WALKERS LOW CATMINT	NEPETA X FAASSENII 'WALKERS LOW'	1 GAL
	115	AUTUMN JOY STONECROP	SEDUM SPECTABILE 'AUTUMN JOY'	1 GAL
GRASSES	QTY <th>COMMON NAME</th> <th>BOTANICAL NAME</th> <th>CONDITION AND SIZE</th>	COMMON NAME	BOTANICAL NAME	CONDITION AND SIZE
	178	FEATHER REED GRASS	CALAMAGROSTIS X ACUTIFLORA 'KAAR FOERSTER'	1 GAL
	85	PRAIRIE JUNGGRASS	HOELERIA MACRANTHIA	1 GAL
	613	LITTLE BLUESTEM GRASS	SCHIZACHYRUM SCOPARUM	1 GAL

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MIDAMERICAN ENERGY COMPANY RECIPLEX
LANDSCAPE REFERENCE PLAN

WEST DES MOINES, IOWA

L1.1

17.11.635

SYNTHETIC TURF

- 1.1 QUALITY ASSURANCE
1.2 CONSTRUCTION REQUIREMENTS
1.3 PRODUCT DELIVERY, STORAGE AND HANDLING
1.4 EXTRA MATERIALS
1.5 WARRANTY
1.6 MANUFACTURERS
1.7 SYNTHETIC TURF
1.8 GROOMER AND SHEEPER

SYNTHETIC TURF CONT.

- 1.9 INSTALLATION
1.10 FIELD MARKINGS
1.11 CLEANING AND PROTECTION
1.12 FIELD QUALITY CONTROL
1.13 CLEANING AND PROTECTION

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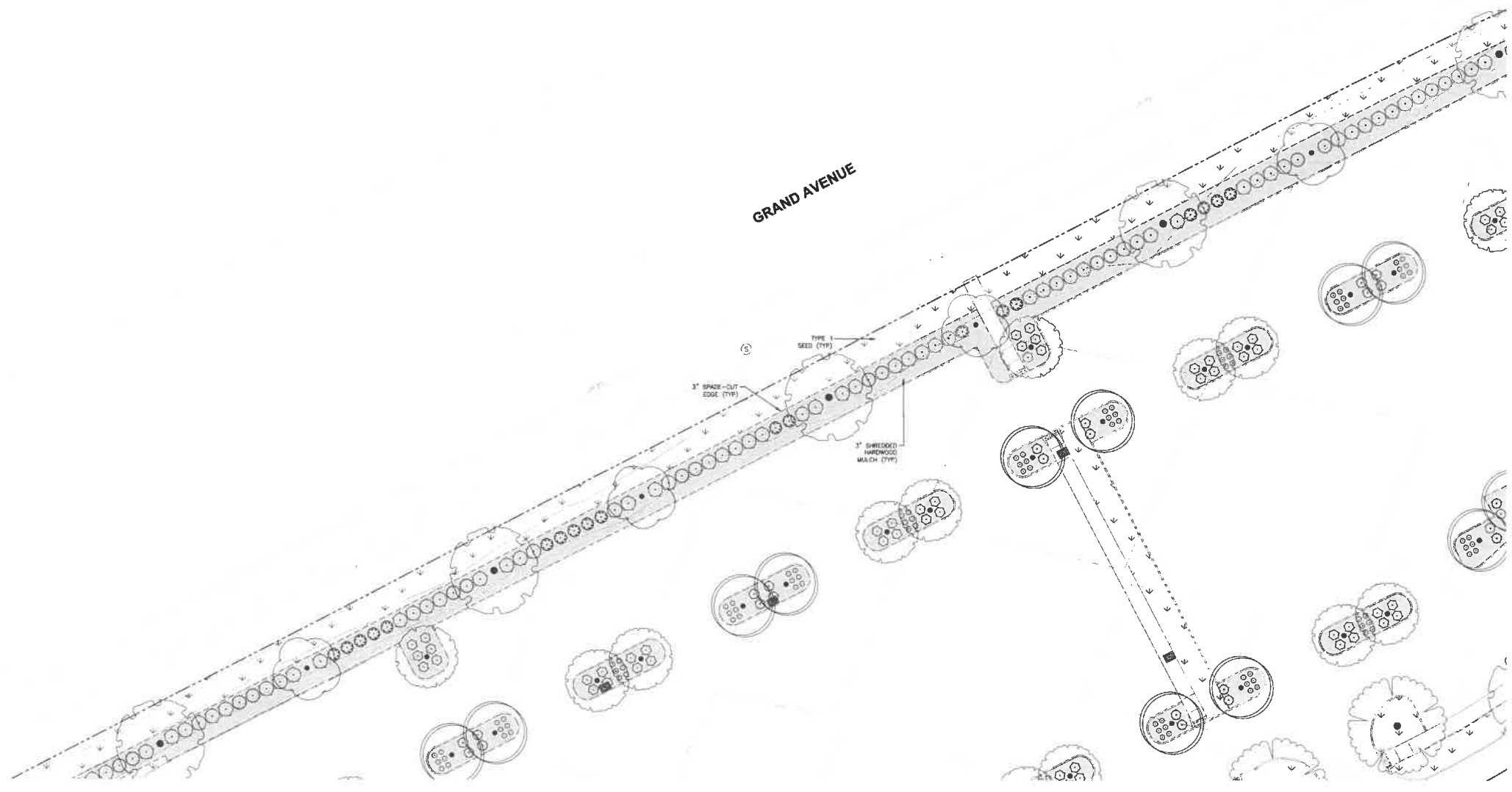
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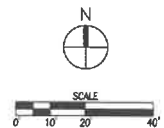
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GRAND AVENUE

3' SPACE-OUT EDGE (TYP)
TYPE 1 SEED (TYP)
3' SHREDDED HARDWOOD MULCH (TYP)



**MIDAMERICAN ENERGY COMPANY RECPLEX
LANDSCAPE PLAN**

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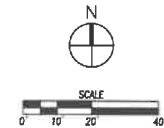
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PROJECT

DATE: 11/20/12
 PROJECT: MIDAMERICAN ENERGY COMPANY RECPLEX
 DRAWING: LANDSCAPE PLAN
 SHEET: 1711.635



MIDAMERICAN ENERGY COMPANY RECPLEX
LANDSCAPE PLAN



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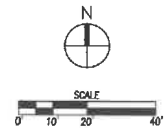
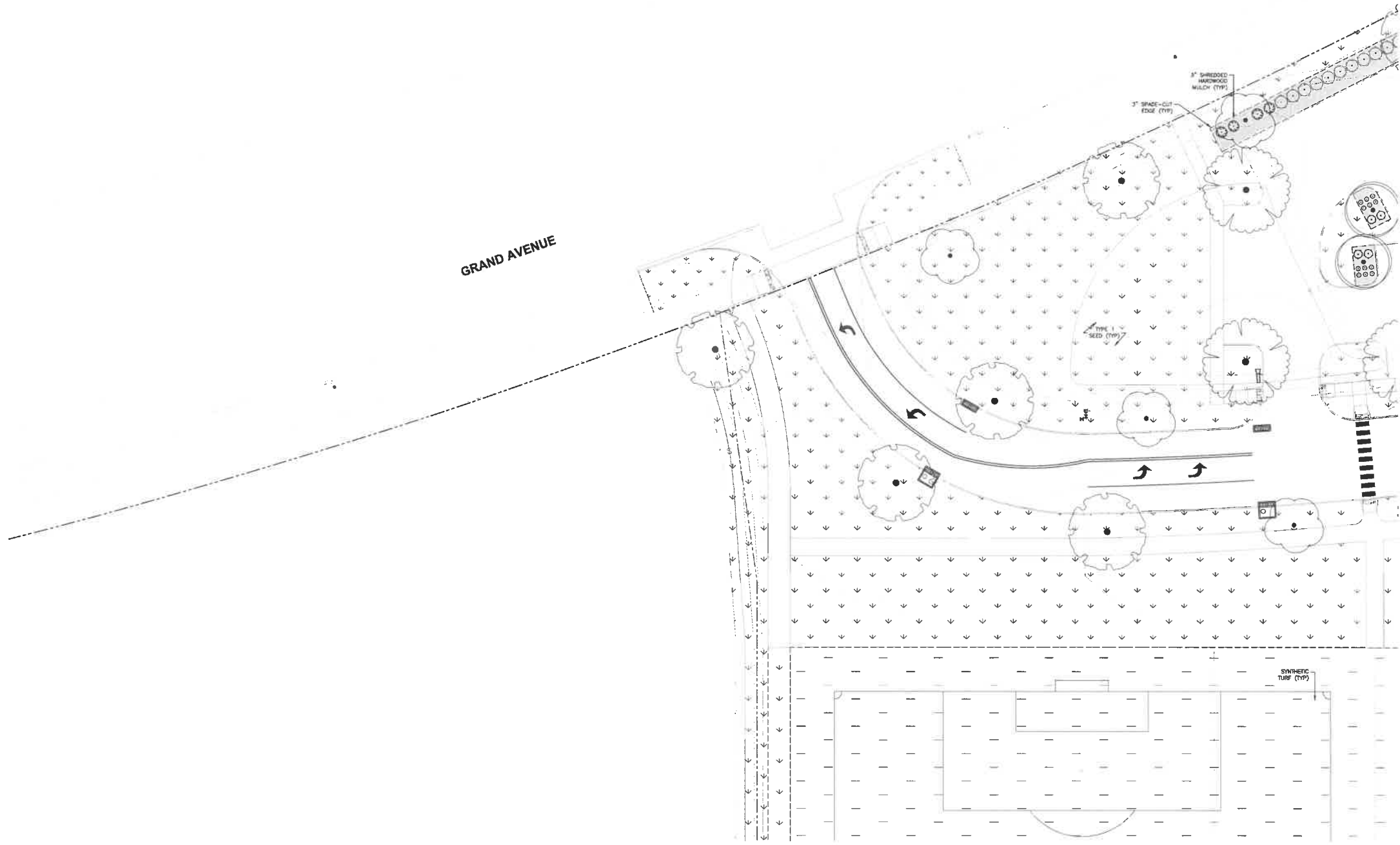
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MIDAMERICAN ENERGY COMPANY RECPLX
LANDSCAPE PLAN



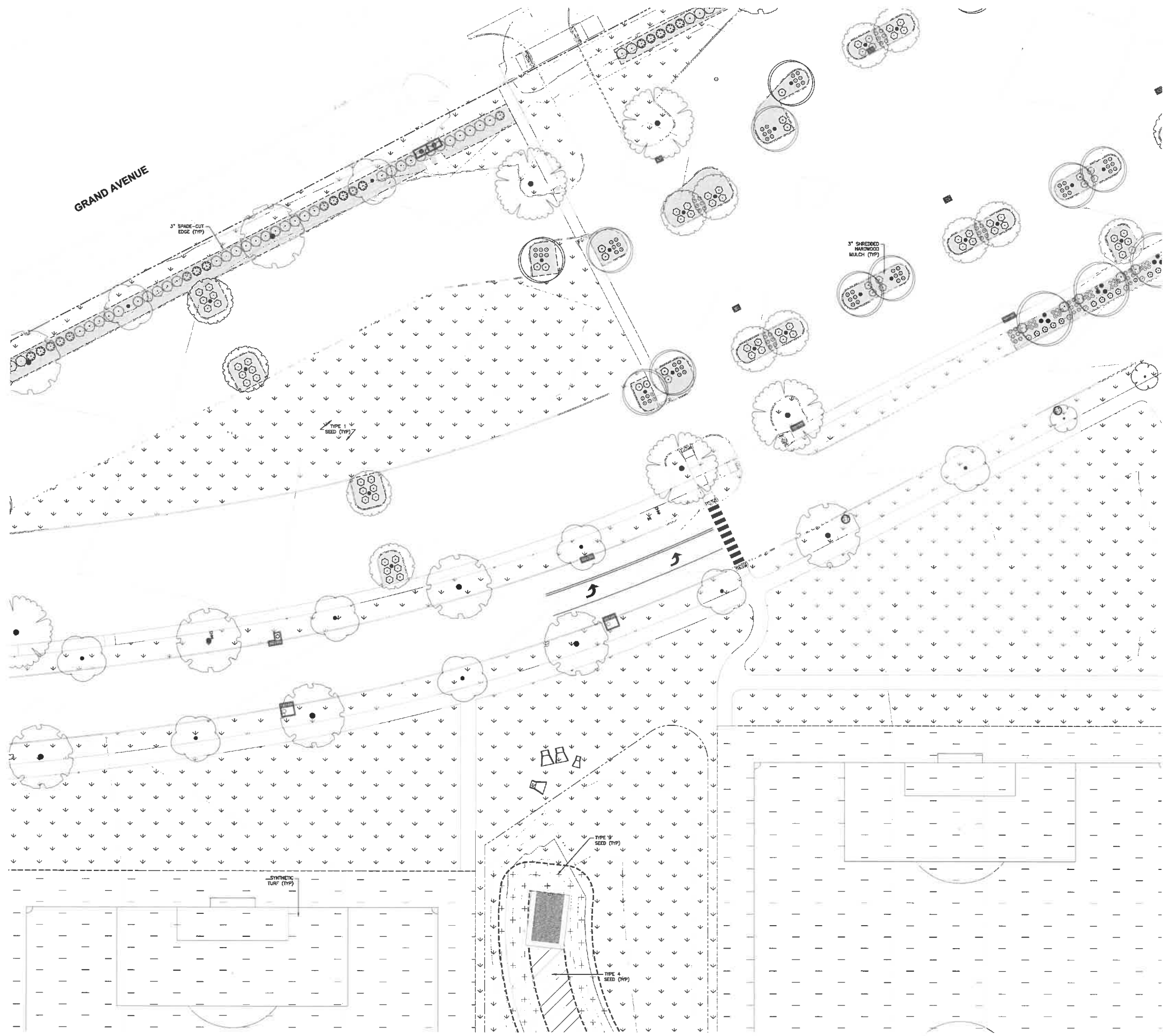
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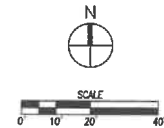
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DATE: _____



DATE: 11/15/11
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 DRAWING: LANDSCAPE PLAN
 SHEET: 1711.635



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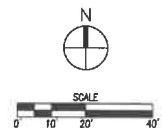
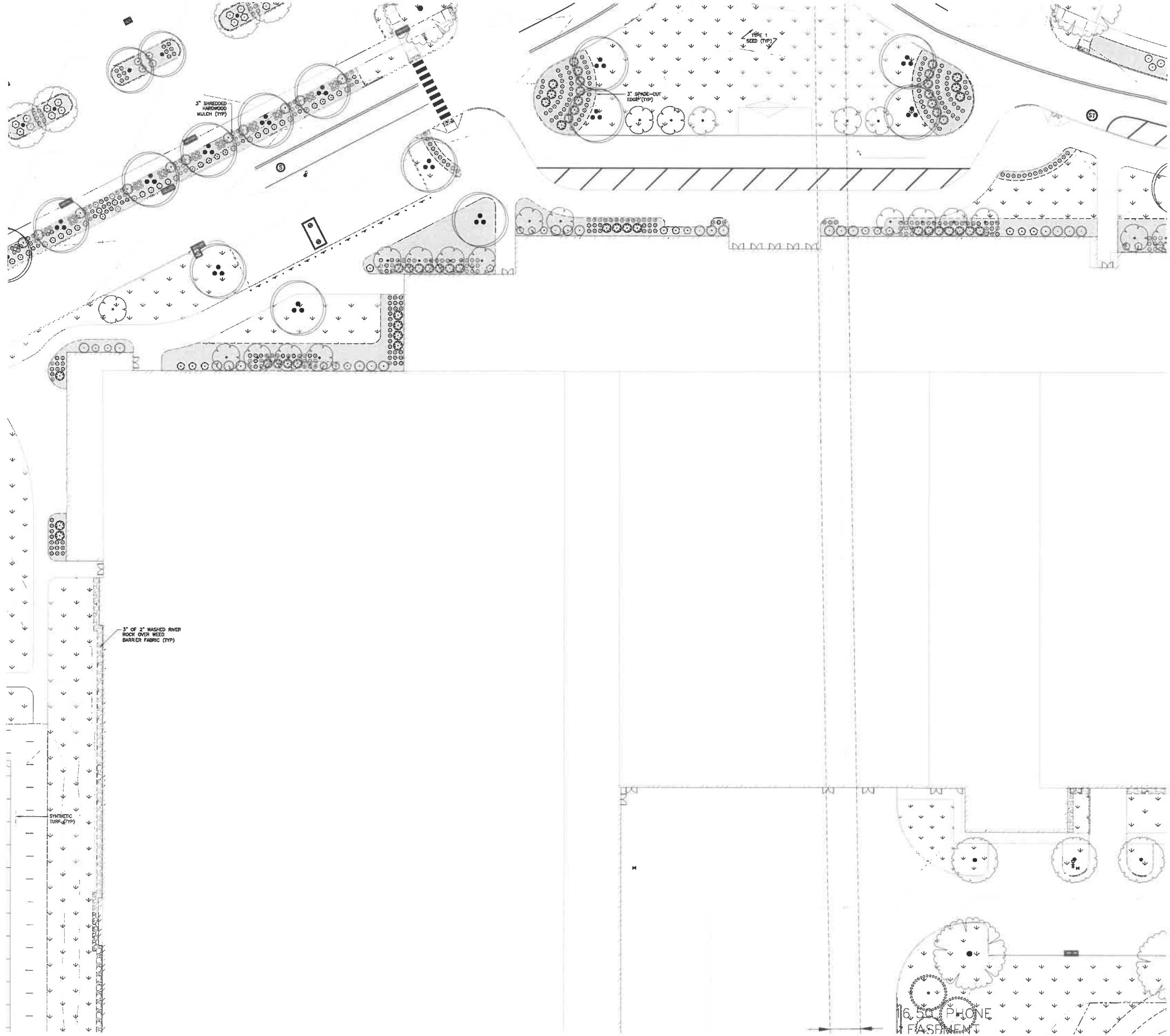
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 ENGINEER: _____
 TECH: _____

MIDAMERICAN ENERGY COMPANY RECPLEX
LANDSCAPE PLAN

NO. 14 NORTHWEST CORNER OF INTERSECTION OF 34th AND 13th STS. CONCEPT PLAN
DATE: 10/20/11
DRAWN BY: J. J. JENSEN



MIDAMERICAN ENERGY COMPANY RECPLX
LANDSCAPE PLAN

L2.6

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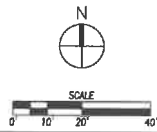
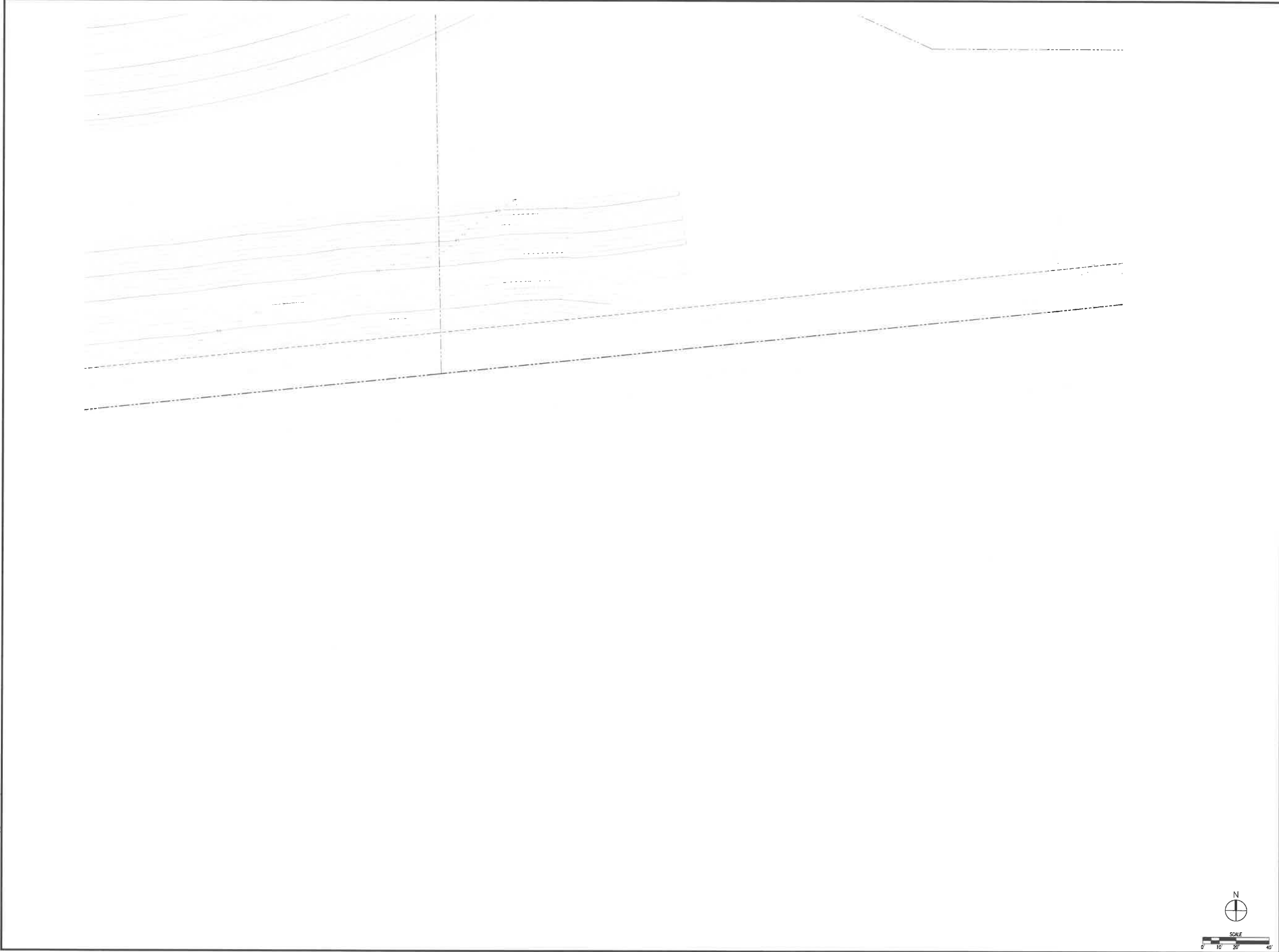
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MIDAMERICAN ENERGY COMPANY RECPLX
LANDSCAPE PLAN

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ENGINEER:

TECH:

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02/25/11